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International Trade Forecasts

An Overview of World, U.S., California, Orange County and Southern California Exports

By

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EXECUTIVE SUMMARY

Global trade was defined by a striking paradox over this past year: extraordinary disruption alongside equally extraordinary resilience. Trade wars, geopolitical conflict, and sweeping policy shifts have not dismantled the global trading system as widely feared. Instead, they have reshaped it—sometimes profoundly, often unevenly—but without breaking it. The result is a world economy that is more fragmented at the margins, yet deeply interconnected at its core.

I. GLOBAL TRADE: RESILIENT AMID TURMOIL

The defining feature of global trade in 2025 is not collapse, but a radical reshuffling**.** Beneath aggregate figures lies a profound reordering of flows—across countries, regions, and supply chains. Trade has not retreated; it has shifted, rerouted, and adapted to a new geopolitical and policy landscape.

- Global trade reached record highs**,** rising over 7% in value and roughly 4–5% in volume, marking one of the strongest expansions outside the post-COVID rebound.
- Measures of global connectedness remain at or near record levels, while the average distance traveled by goods has increased**,** directly contradicting narratives of widespread nearshoring or regionalization.
- The most important shift is geographic: trade is moving away from geopolitical fault lines and toward the "unaligned middle."
    - Trade with neutral economies—Vietnam, India, Indonesia, Mexico, Malaysia, and others—has surged, rising to nearly half of global trade flows**.**
    - These countries have emerged as the primary beneficiaries of supply chain reconfiguration, acting as intermediaries in a more complex and layered trading system.
- This is not friendshoring in the traditional sense. It is de-risking without full alignment—firms are diversifying exposure without committing to geopolitical blocs.

The U.S.-China breakup is reshaping the global map in important ways.

- The U.S.–China breakup has accelerated into a broad-based economic decoupling:
    - U.S. imports from China fell by nearly 30% in 2025 (roughly $130 billion), while exports to China declined by approximately 26%**.**
    - The bilateral trade deficit narrowed sharply, falling to just over $200 billion**,** down significantly from prior peaks.
    - Total bilateral trade volume contracted by nearly one-third in a single year**,** marking one of the sharpest collapses in modern trade history.
- Yet this is not a simple unwind—it is a rerouting**:**
    - The decoupling has not translated into much in terms of overall balances: the US recorded its largest goods trade deficit on record last year at $1.24 trillion, and China its largest surplus. This is possible only because trade flows shifted dramatically beneath the surface.

    - China's global exports reached record highs, as lost U.S. demand was redirected toward other markets. The lost American market share was almost single-handedly replaced by surging flows to ASEAN countries, where China exported $94 billion more than in 2024. Chinese exports to Vietnam and Thailand surged by 20% and those to India and Indonesia by similar double-digit gains.
    - These same countries have simultaneously increased exports to the United States: U.S. imports from Vietnam alone surged, pushing the U.S. trade deficit with Vietnam to roughly $178 billion, now the third-largest globally.
- The implication is clear: direct decoupling, indirect coupling. The U.S. is importing fewer goods *from China*, but not necessarily fewer goods *made with Chinese inputs*.
- These shifts underscore a central point: global trade is not fragmenting into isolated blocs. Instead, it is evolving into a more complex, multi-polar network, with neutral economies playing an increasingly central role.

Why Trade Proved Resilient

The resilience of global trade in the face of such disruption reflects a combination of policy, structural, and cyclical factors:

- **Tariffs proved less binding than advertised**
    - Headline tariff rates were often extreme, but the effective rates were significantly lower due to exemptions, delays, legal challenges, and negotiated rollbacks.
    - While the statutory rate was around 16.8% for much of the past year, our calculations based on actual customs data show an average effective rate of only 10.8%. Currently, after the SCOTUS decision, the average effective rate is around 9%.
- **The "trade war" never fully materialized**
    - Outside of China, retaliation was limited and short-lived.
    - Most countries opted to negotiate rather than escalate, resulting in a series of bilateral agreements rather than a global tariff spiral.
- **Artificial Intelligence emerged as a major trade driver**
    - AI-related goods accounted for a disproportionate share of global trade growth. Trade in semiconductors, servers, and networking equipment surged, with AI-linked products contributing roughly 40%+ of total trade growth despite representing a much smaller share of total trade.
    - Asia—particularly Taiwan and key manufacturing hubs—captured the bulk of this expansion.
- **Front-loading and inventory dynamics supported short-term flows**
    - Firms accelerated imports ahead of tariff implementation, producing a sharp surge in early 2025 trade volumes.

- While this effect will unwind, it provided a meaningful boost to annual trade figures.

- **Supply chains adapted rather than collapsed**
  - Firms have shifted from efficiency to resilience**,** building redundancy into supply chains.
  - This has increased trade intensity, as goods move through more complex, multi-country production networks.

II. TRADE POLICY: THE ERA OF ECONOMIC STATECRAFT

Trade policy has undergone a profound transformation. Tariffs are no longer narrowly economic tools—they have become central instruments of geopolitical strategy, increasingly deployed not just to address trade imbalances, but to achieve broader strategic objectives, including supply chain realignment, industrial policy goals, and the containment of geopolitical rivals, particularly China.

- The initial tariff shock was significantly overstated — while headline rates announced on "Liberation Day" were exceptionally high, the actual economic burden proved far more moderate due to a combination of exemptions, carve-outs, phased implementation, and subsequent negotiated reductions.
- Five final reciprocal deals and a dozen framework agreements were concluded. The trade deals have been broadly asymmetric in nature — most agreements have resulted in lower tariff rates for U.S. partners relative to initial threats, but at the cost of significant concessions, including commitments to increase imports of U.S. goods, expand investment in U.S. industries, and align with U.S. regulatory and strategic priorities.
  - **Smaller and highly exposed economies bore the greatest adjustment costs** — countries with significant reliance on U.S. export markets, such as Vietnam, Cambodia, and Malaysia, were compelled to accept deeper concessions, including stricter rules of origin, reduced trade barriers, and commitments aimed at limiting transshipment from China.
  - **Larger economies secured more favorable terms, but still made meaningful concessions** — major partners such as the European Union, Japan, and South Korea negotiated lower tariff rates and sectoral exemptions, yet committed to substantial purchases of U.S. energy and goods, as well as increased investment in key industries, reinforcing U.S. strategic objectives.
- A more durable and institutionalized tariff architecture is now in place — following the Supreme Court's rejection of the IEEPA framework, trade policy has shifted toward Sections 301 and 232, which are more targeted, legally grounded, and historically resilient, signaling a move away from ad hoc measures toward a more permanent and predictable regime.
- Perhaps most importantly, the SCOTUS decision, while inducing some short-term uncertainty, has laid the foundation for a more stable and durable tariff regime—permanently curbing the chaotic use of tariffs as open-ended levies imposed on anyone, for any reason, and for any length of time.

Thus, we believe peak tariff uncertainty is firmly behind us. That said, tariffs are not a temporary shock but a persistent feature of the global landscape—one likely to outlast the current administration.

III. GEOPOLITICS AND ENERGY: THE IRAN WAR

The war in Iran has emerged as a critical source of global economic risk, particularly through its impact on energy markets and trade flows.

- The conflict is best understood as two parallel wars: U.S. and Israeli airstrikes against Iranian nuclear and military infrastructure, and Iran's systematic targeting of energy infrastructure across the Gulf.
- The effective blockade of the Strait of Hormuz represents the largest oil supply disruption in modern history — roughly 20% of global oil supply and a third of globally traded LNG cut off
- The pain is not evenly distributed — Asia bears the brunt; the U.S. is an unlikely beneficiary, insulated by domestic production and advantaged by surging LNG exports to energy-starved Europe
- Mitigation efforts are underway — IEA strategic reserve releases, de-sanctioned Russian oil, accelerated U.S. LNG shipments — but spare capacity is limited and natural gas has no strategic reserve equivalent
- The biggest risk is a "purgatory scenario": neither full disruption nor full normalization, neither war nor peace, but sustained friction that keeps energy prices elevated. This would amplify stagflationary pressures globally, complicating monetary policy and weighing on growth.
- Our baseline scenario is for a resolution to this conflict measured in months rather than years — oil futures agree — but the ceasefire is brittle, negotiations have stalled, and risks to the baseline remain sky-high.

IV. USMCA: FROM TRADE AGREEMENT TO STRATEGIC PLATFORM

The upcoming USMCA review marks a pivotal moment in North American economic integration.

- The United States is approaching the review not as a routine update, but as an opportunity for broader renegotiation and strategic realignment.
- The agreement is increasingly viewed as a mechanism for creating a North American economic perimeter, aligned with U.S. geopolitical objectives.
- Despite tensions, the underlying economic integration remains deep and difficult to unwind, particularly in manufacturing and energy.
- Our baseline outlook is for a protracted, contentious renegotiation that falls short of a clean extension but well short of termination. The United States is positioned to extract significant concessions across a range of issues: tighter auto content requirements, expanded investment screening for nonmarket economies, stronger forced labor enforcement, and—

critically—a strengthened nonmarket economy clause to prevent USMCA from serving as a backdoor for Chinese goods into the U.S. market.

VI. SOUTHERN CALIFORNIA EXPORTS

After two consecutive years of decline, LA MSA merchandise exports rebounded 6.2% in 2025 to $62.5 billion—the first increase since 2022—while Orange County grew 5.4% to $17.5 billion, anchored by its medical device and semiconductor clusters. The rebound was driven by three forces: an aerospace recovery as Boeing worked through its delivery backlog (with national civilian aircraft exports up 22%), a surge in computer and electronics exports tied to AI infrastructure demand, and strong global demand for California agricultural products transshipped through the San Pedro Bay ports.

Headwinds remained significant: China's retaliatory tariffs weighed heavily on agricultural exports; the unwinding of tariff-driven front-loading depressed second-half volumes; and the region's heavy exposure to Asian markets leaves it more vulnerable than most metros to bilateral trade deterioration. Both regions are expected to lag the national export pace through 2028—and the gap is structural, not cyclical. National export growth is increasingly driven by LNG and petroleum exports, sectors in which Southern California has little presence. LA's true export economy is significantly larger than goods data suggest. High-value service exports—including entertainment (Hollywood IP), financial services, and a rapidly growing space and defense cluster anchored by firms such as SpaceX and Northrop Grumman—are largely invisible in merchandise trade statistics.

Looking ahead, growth is expected to grow at a moderate pace. LA MSA exports are projected to expand by 6.4%, 4.3%, and 3.7% from 2026–2028, reaching $72.0 billion—still $4.3 billion below the 2013 peak. Orange County is projected to grow by 6.5%, 4.7%, and 3.7%, reaching $20.2 billion—remaining $8.4 billion below its 2013 high.

Table 1
Merchandise Exports
Orange County, Los Angeles-Long Beach-Anaheim MSA and the Inland Empire
(millions of dollars)

Year	OC Export Volume	OC Exports Growth Rate	LA-LB-SA Export Volume	LA-LB-SA Exports Growth Rate	Inland Empire Exports Volume	Inland Empire Exports Growth
2025	17,498	5.4%	62,566	6.2%	10,875	-1.3%
			Forecast			
2026	18,629	6.5%	66,549	6.4%	11,715	7.7%
2027	19,509	4.7%	69,431	4.3%	12,337	5.3%
2028	20,221	3.7%	72,012	3.7%	12,935	4.8%

Source: *Woods Center, California State University Fullerton & International Trade Administration*

A. THE RED WEDDING THAT WASN'T: RESILIENT GLOBAL TRADE IN AN ERA OF CRISIS, CHAOS AND CONFLICT

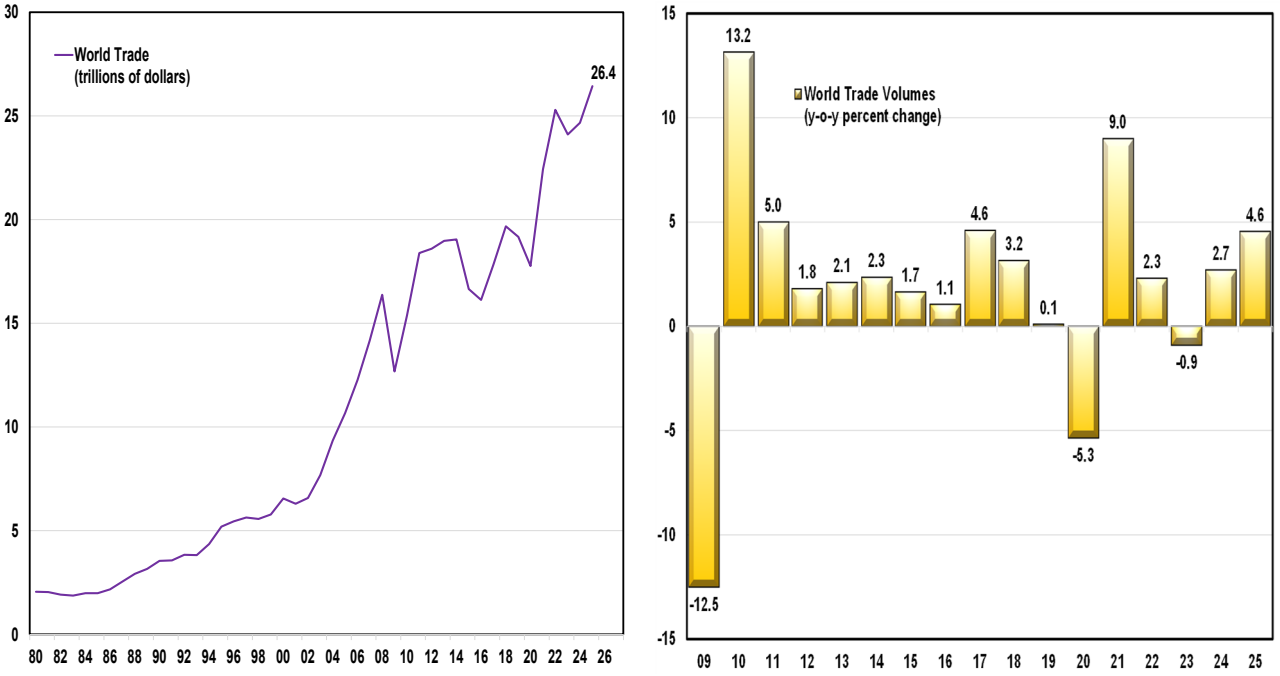
Sylvio Forel: "What do we say to the God of Death?".
Arya Stark: "Not today!"
—Game of Thrones

"Winter is Coming"—the ancient words of House Stark, etched into both stone and psyche throughout the world of *Game of Thrones*—may never have rung louder than they did in the spring of 2025. When President Trump declared "Liberation Day" on April 2—blanketing the world with a universal 10% tariff and imposing steep reciprocal tariffs on nearly 60 trading partners—white ravens, harbingers of doom, were swiftly dispatched from every corner of the modern-day Citadel. The WTO, the IMF, the World Bank, and a seemingly endless supply of analysts rushed to issue warnings, each more dire than the last: the final blow to the long summer of globalization had been struck, and the descent into the Long Night—a generation-defining era of darkness, death, and despair—was imminent. Dark metaphors quickly filled the airwaves: the 1930s-style depression, Smoot-Hawley, the death of the postwar liberal order. Even the obscure yet visually striking Kindleberger Spiral— an awkwardly scaled spiderweb resembling a swirling whoosh of water being sucked down a drain, representing the collapse of global trade from 1929 to 1933—made a comeback. The ravens had spoken: global trade was headed for a long and brutal winter.

One year in, none of this has materialized: the white ravens were spectacularly — almost embarrassingly — wrong. By every metric, the world has never been more interconnected and the gap between globalization rhetoric and data never wider. World trade rose to an all-time high of $26.4 trillion, an increase of 7.2% over the previous year and the strongest growth since 2019, excluding the volatile pandemic period (Figure A1). The figures are even more striking in volume terms, which strip away the noise of exchange rate fluctuations: global trade volumes rose 4.6% — the largest increase since 2017, again excluding the COVID rebound (Figure A1). In the words of House Martell, global trade in 2025 remained "unbowed, unbent, unbroken".

Just as importantly, the depth of global interconnectedness—a measure of international activity relative to domestic activity—remained intact. According to the DHL Global Connectedness Tracker, which draws on nine million data points across trade, capital, information, and people flows in roughly 180 countries, globalization held steady at 25% in 2025, matching the record high first reached in 2022 (with 0% indicating no cross-border flows and 100% a fully globalized world). Yet even at this elevated level, cross-border activity remains a minority share of total economic activity, underscoring both the reach—and the limits—of globalization. Perhaps most strikingly, traded goods traveled an average distance of 5,010 kilometers in 2025—the longest ever recorded—while within-region flows fell to a record low, a direct rebuke to the nearshoring and regionalization narratives that have come to dominate the discourse (Figure A2). Despite widespread expectations, a decisive shift from global to regional trade patterns has yet to materialize—at least for now.

Figure A1
Resilient World Trade
(trillions of dollars and y-o-y percent change in volumes)



Concerns that the world is splintering into fragmented geopolitical blocs also appear somewhat overblown. Even before the latest U.S.–China rift, most global business already occurred among aligned economies. In 2025, only 12% of global trade, 5% of greenfield FDI, and 3% of cross-border M&A took place between U.S.-aligned and China-aligned blocs. Trade among allies was roughly three times larger than trade between rival blocs, while greenfield investment and M&A activity were nine and twenty times greater, respectively.

To be sure, as we discuss below, decoupling between the United States and China has progressed steadily since the first Trump Administration trade war and intensified further in 2025. Yet, on a global scale, the reorientation of trade and investment away from geopolitical rivals remains somewhat more modest. U.S.–China trade has declined from 3.6% of global GDP in 2015 to about 2.0% today, while trade between rival blocs of close allies has fallen from a peak of 13.4% of GDP in 2013 to 10.2% (Figure A3). In total, roughly 4.8% of global trade has shifted away from rival blocs over the past decade—a meaningful shift, but far from a wholesale fragmentation of the global trading system. This likely reflects, in part, the fact that most economic activity already occurs within aligned blocs, leaving relatively limited scope for further fragmentation.

Figure A2
More Interconnectedness, Less Regionalization
(average distance and regional share of trade in goods)

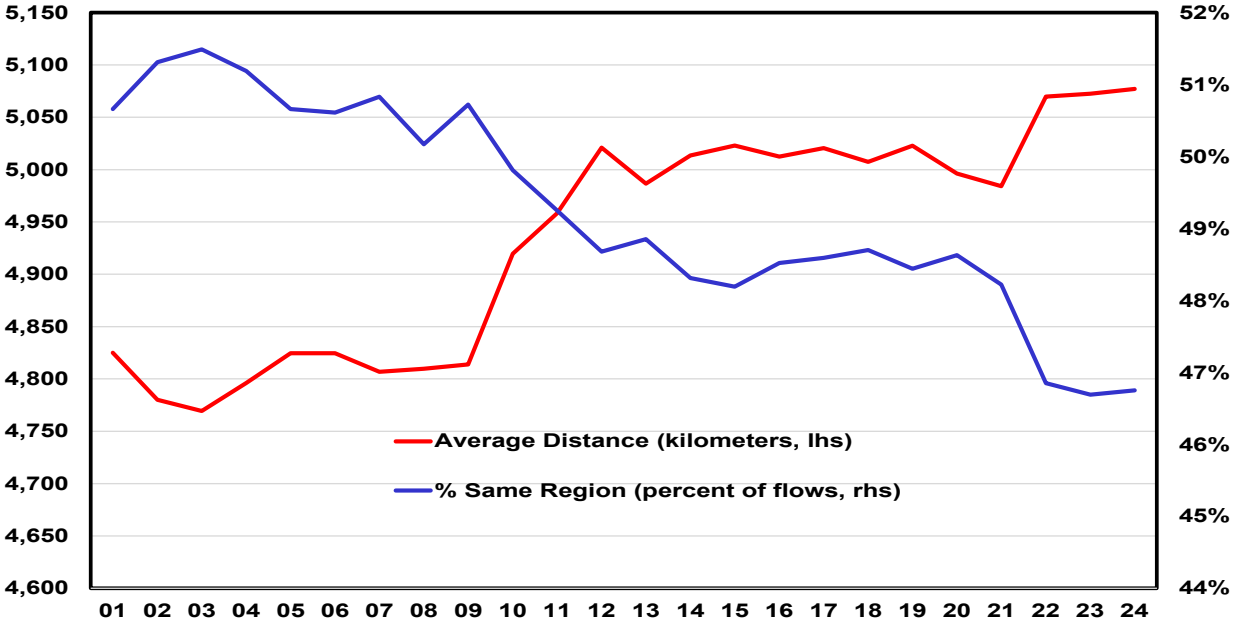
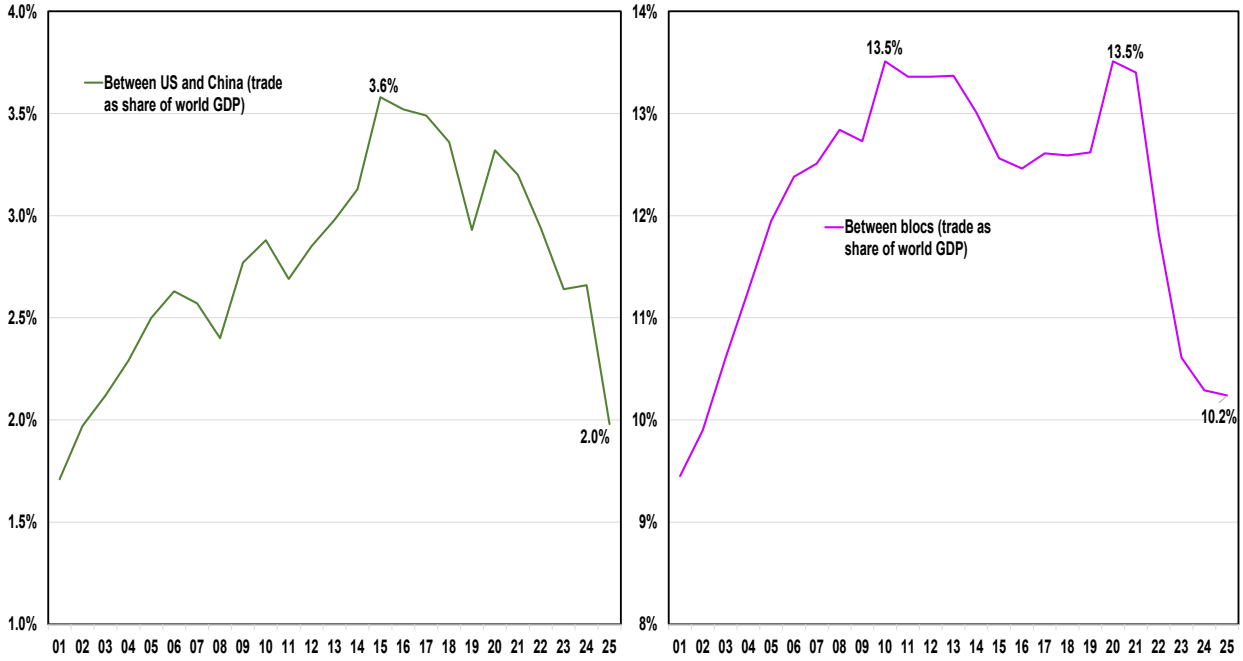
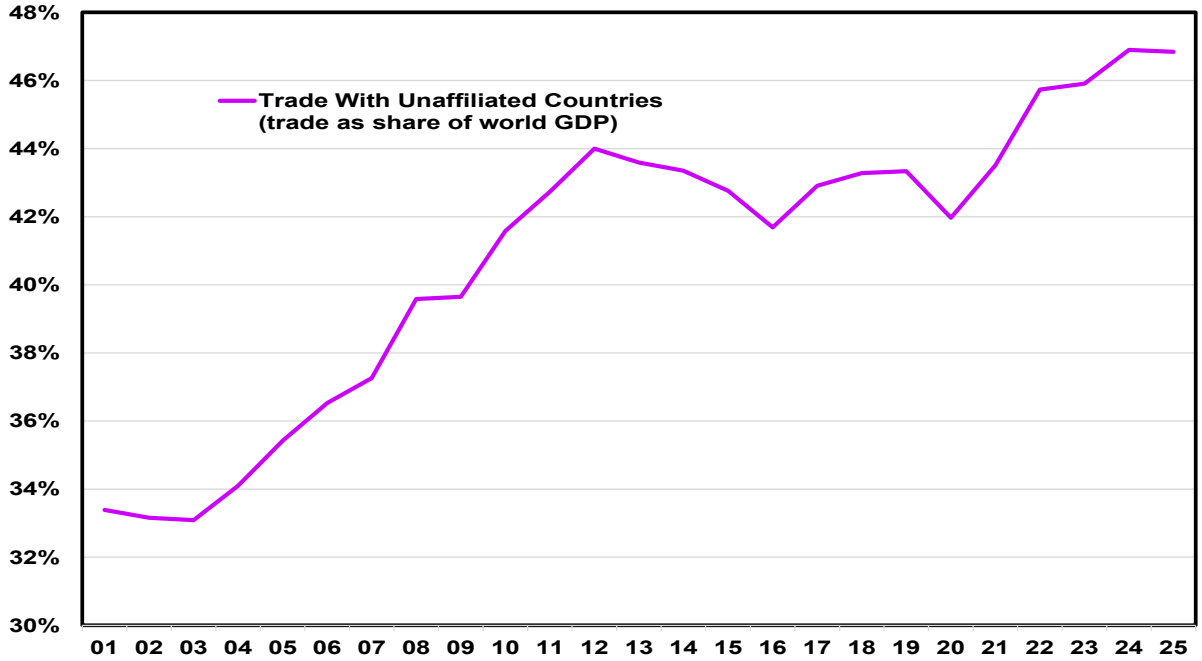


Figure A3
Some Fragmentation Along Geopolitical Lines Though Not Massive
(trade as share of world GDP: US v. China and between blocks)



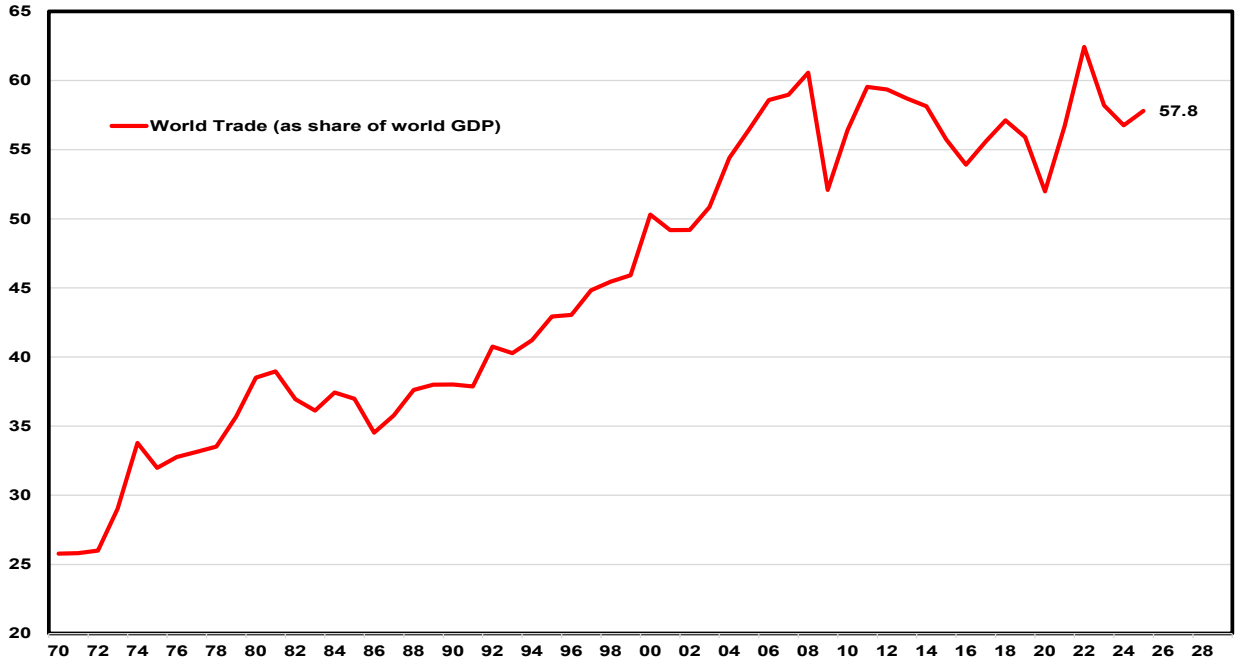
The much-vaunted friendshoring and nearshoring revolution—the other pillar of the post-pandemic, post-tariff era, in which firms were expected to fortify supply chains by moving production closer to home or toward trusted allies—has also proven far less pronounced than headline narratives suggest. In fact, what reconfiguration has occurred has flowed not toward close allies, but toward neutral countries: Vietnam, India, Mexico, Indonesia, Malaysia, Turkey, and Brazil—the unaligned middle. Trade with these "unaligned" economies has risen from roughly 35% of global goods trade in 2001 to nearly 48% in 2025—the single largest shift, dwarfing movements both within and across geopolitical blocs (Figure A4). The world, it seems, is engaging more in "de-risking" than in "friendshoring"—reducing exposure to adversaries without fully embracing allies. The great geopolitical sorting that was expected to redraw the map of global trade has, so far, primarily benefited the neutral players—the Free Folk—unaligned with any of the great powers.

Figure A4
The Biggest Beneficiaries from U.S.-China Rift: Unaffiliated Countries
(trade as share of world GDP: unaffiliated countries)



This means that, despite calamitous warnings, world trade as a share of global GDP—the broadest measure of globalization's footprint—has remained remarkably stable since the global financial crisis, hovering around 58% throughout (Figure A5). If anything, there was a slight uptick last year, even as trade frictions intensified. The world, in other words, is neither charging headlong into deeper globalization nor pulling back from it. Instead, global interconnectedness appears to have settled into an uneasy yet durable plateau over the past 15 years—holding steady through shock after shock: the global financial crisis, the first Trump trade war, COVID, the Russia–Ukraine war, and now the most sweeping reshaping of the global trading order in a generation. There is little reason to expect a decisive break from this pattern anytime soon: trade flows may reshape and reroute, but the overall global architecture is likely to endure.

Figure A5
Neither Advancing nor Collapsing: Trade Share of GDP Has Held Steady
(trade as share of world GDP)



What's most impressive is that global trade has remained resilient despite a surge in trade restrictive measures which have ramped up dramatically in recent years. The stockpile of restrictive trade measures, quietly accumulating since the 2008 financial crisis, surged to a record $4.6 trillion in 2025, covering nearly 20% of world imports — up from 12.5% just a year earlier, the largest single-year jump in the history of the WTO's monitoring exercise (Table A1). New restrictive measures increased more than fourfold compared to the prior year, reaching $2.64 trillion — and for the first time since the WTO began tracking in 2009, the value of trade covered by restrictive measures exceeded the value covered by liberalizing ones. Anti-dumping measures have risen dramatically: 368 initiations alone in 2024 — the highest since 2002 — with 39% targeting China, as country after country reached for trade remedy tools to defend against the flood of Chinese goods redirected away from the U.S. market. India led the charge with 81 new initiations, followed by Brazil with 37 and the EU with 29. The share of global trade conducted under MFN (Most Favored Nation) rules — the bedrock of the multilateral system — fell from 80% to 72% in a single year. Export restrictions gained momentum too, with the accumulated stockpile now affecting 3.5% of world exports: China's export controls on rare earths sent a chilling warning through global supply chains.

Table A1
Trade Under Restrictive Measures

Year	Stockpile Value (USD bn)	% of World Imports	Year-on-Year Change
2009	$73bn	0.6%	Base year
2012	$306bn	1.7%	Post-crisis buildup
2015	$467bn	2.5%	Steady climb
2016	$496bn	3.1%	+0.6pp
2017	$736bn	4.2%	+1.1pp
2018	$1,384bn	7.1%	+2.9pp — Trump Trade War 1.0
2019	$1,551bn	8.2%	+1.1pp
2020	$1,427bn	8.1%	COVID disruption
2021	$1,992bn	9.0%	Post-COVID rebound
2022	$2,281bn	9.0%	Russia-Ukraine
2023	$2,614bn	11.0%	+2pp
2024	$3,007bn	12.6%	+1.6pp
2025*	$4,693bn	19.7%	+7.1pp — LARGEST SINGLE-YEAR JUMP EVER

The rise of these measures should come as no surprise. As we have argued in these pages, the past three decades were less a triumph of free trade than a footnote to it—an era better understood as one of managed trade: a loosely governed system in which industrial policy, state subsidies, preferential financing, and strategic market interventions shaped the flow of goods. China's rise illustrates this dynamic on a far larger scale, and dramatically more stark terms, than earlier industrial policy success stories, from Japan to South Korea.

China today accounts for roughly 30% of global manufacturing value added—a share that has risen steadily from 25.9% in 2015 and that dwarfs every other nation, leaving the United States nearly 12 percentage points behind. By 2030, China is projected to account for as much as 45% of global industrial production, while the combined West falls to just 11%. The transformation of its export profile has been equally dramatic: electronics now account for 24% of Chinese exports, up from near zero two decades ago, and Chinese firms exported $1.5 trillion in strategic high-

technology products in 2023 alone—nearly 20% of global exports in those sectors. Chinese EV brands have rapidly gained ground abroad, with their share of the EU market rising more than eightfold between 2019 and 2023.

The result has been not merely growth, but displacement. Entire industries have been hollowed out across the United States, Europe, and parts of the developing world, as Chinese producers captured market share at prices few unsubsidized competitors could match. Steel, aluminum, solar panels, electric vehicles, shipbuilding, chemicals, textiles—sector after sector has buckled under pressure from Chinese overcapacity. Indeed, an estimated 300 Thai factories have closed in the past two years — in furniture, electronics, garments, autos, and steel — and expects the trend to worsen. Indonesia's textile sector lost 80,000 workers in 2024, with 280,000 more jobs at risk as 60 companies plan further cuts. Vietnam faces an estimated 4 to 5 million low-value orders daily from Chinese e-commerce platforms, amounting to almost $2 billion per month.

China's steel overcapacity has emerged as an immediate threat — China's steel exports surged in 2023 to the highest levels since 2016, and rose a further 23% in 2024, prompting several ASEAN nations to raise steel tariffs. Indonesia has been among the most aggressive, imposing tariffs on Chinese textiles and steel. Other countries, like Vietnam, have also followed suit. One thing is clear: today's trade restrictions are born out of desperation: a delayed and somewhat disorderly response by a global trading system finally reckoning with the fact that the rules it enforced never quite matched the game being played.

As such, they have enduring power and will likely remain a fixture of global trade for years to come. Indeed, restrictions and resilience are not contradictions—they are part of the same adjustment: a trading system under pressure, adapting rather than collapsing. Trade is reorganizing, not retreating. Connections are evolving, not dissolving. "I have a tender spot in my heart for cripples, bastards, and broken things," Tyrion Lannister once quipped. Global trade may be battered, strained, and pressured, yet—like so many broken things in Westeros—it endures.

2025 is a stark illustration of this: trade proved so remarkably resilient—even amid the most sweeping reshaping of the global order in a generation—that it not only defied but shattered expectations. There are several reasons for this resiliency. To begin with, tariffs turned out to be far less damaging than advertised — owing to the many exemptions, delays, carveouts, and negotiations, even before portions were ultimately struck down by the Supreme Court in February 2026. As *Game of Thrones* reminds us, "Power resides where men believe it resides. It's a trick — a shadow on the wall." Much like that shadow, the perceived economic damage of tariffs often loomed orders of magnitude larger than their actual effects. In this sense, and as we argued at the time, the outsized panic over tariffs was never fully justified. In his characteristically wry fashion, Treasury Secretary Scott Bessent dubbed the reaction "a new version of TDS — tariff derangement syndrome."

Tariffs, after all, are a deliberate policy tool—not an act of nature or an unavoidable calamity. While Donald Trump's near-religious affinity for them is by now well understood, so too is his

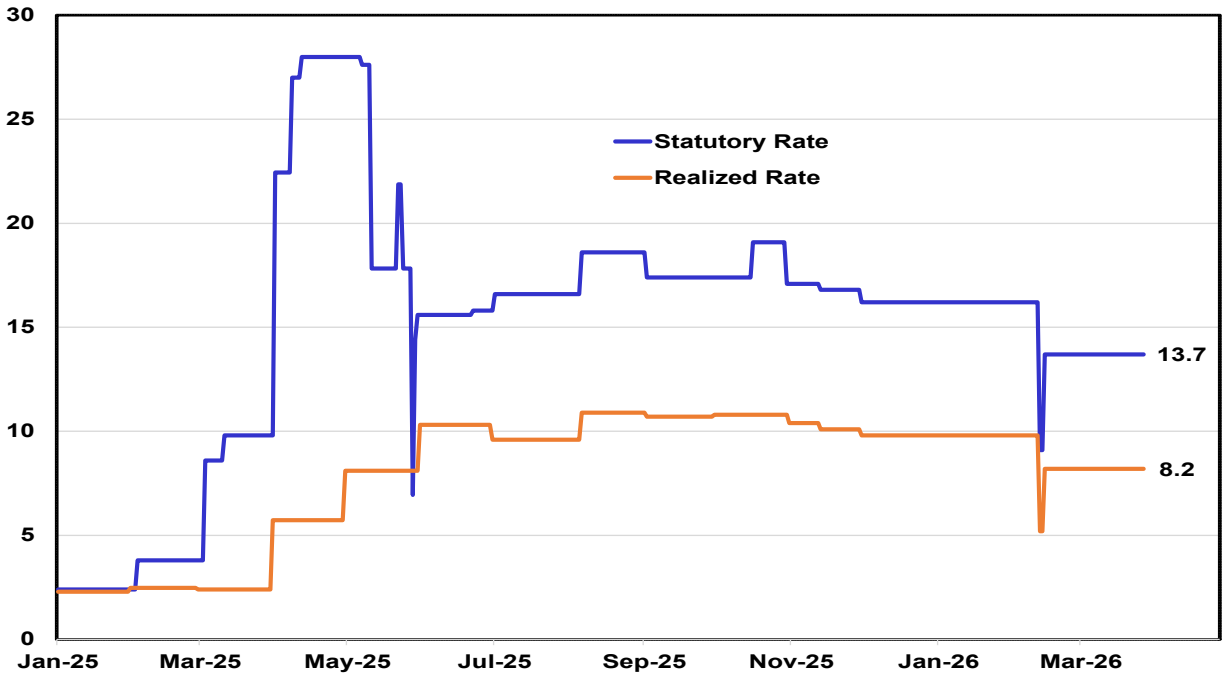
willingness to adjust—to test and pull back, to push and pivot as conditions evolve. This pattern has even earned an unflattering acronym, TACO—"*Trump Always Chickens Out*"—which he publicly rejects but which markets have quietly come to expect. Yet, catchy as it is, TACO fails to capture the full strategy. A more fitting description might be TAPAS—"*Trump Always Pushes and Shifts*"—reflecting a willingness to press tariff policy as far as markets will tolerate before tactically retreating when necessary.

There has been no shortage of TACOs and TAPAS over the past year. Within just seven days of "Liberation Day," President Trump paused tariffs on nearly all countries. China—the most dramatic case—saw tariff rates swing from 145% down to roughly 30% through two successive Geneva-style truces, the second extending through November 2026. Nineteen bilateral deals followed, spanning partners from the EU, Japan, South Korea, and the UK to Vietnam, Indonesia, Cambodia, and Bangladesh—most settling in the 15–20% range, a fraction of the initially threatened rates.

The most consequential shift, however, came from the Supreme Court, which struck down the IEEPA-based tariff framework, prompting its replacement with a universal 10% tariff—one the administration has signaled could rise to 15%. Even before that ruling, a cascade of exemptions, carveouts, negotiations, and legal reversals had quietly hollowed out the reach of the policy: less than half of U.S. goods imports (46%) remained subject to meaningful tariff increases, far from the sweeping scope envisioned on Liberation Day. The effective statutory tariff rate fell from 28% at its Liberation Day peak to 16.7% just before the Court's decision, dropping further to 9.1% after the ruling, before settling at roughly 13.7% under the current universal 10% regime (Figure A6). Yet even these figures overstate the true burden. The realized tariff rate—measured from actual customs duties collected —hovered around 11% throughout much of last year and has since declined to approximately 8.2%.

Another reason trade proved so resilient is that the trade war never truly materialized. Indeed, it could hardly have been less warlike. When the Trump administration ramped up tariffs, we were promised the world would descend into an autarkic abyss reminiscent of the 1930s, when the Great Depression ushered in an era of protectionism, export controls, and retaliatory tariffs that sent global commerce into a Kindleberger-like doom spiral. Yet—save for China—few countries retaliated. Canada tried, only to be punished with higher rates, after which it quietly rolled back its own threats against the U.S. The EU drew up a carefully calibrated list of goods designed to inflict maximum political pain on Republican congressional districts—only to shelve the package after a summer trade deal. India pushed back, then negotiated its way to a truce. Brazil was singled out for a punitive 50% tariff, only to see it quietly unwound when the U.S. realized it needed Brazil's critical minerals more than it needed the fight. "Stick them with the pointy end," Jon Snow tells Arya upon gifting her Needle. In practice, however, a light jab often proved enough to bring trading partners to the table — and to secure deals that were, more often than not, surprisingly lopsided in favor of the U.S.

Figure A6
A Wolf in Sheep's Clothing: Tariffs Are Less Damaging than Advertised
(statutory and realized tariff rate, percent)



World trade also had help from some unexpected corners last year: artificial intelligence proved to be the most powerful engine of trade resilience in 2025 as surging global demand for AI-related hardware boosted trade. AI-related products — representing less than one-sixth of world merchandise trade — accounted for 42% of all goods trade growth in 2025, according to the WTO (Figure A7). Trade in these products expanded by more than 20% year-on-year, reaching $1.92 trillion in the first half of 2025 alone, while non-AI goods grew at a more pedestrian 4%. Global shipments of AI hardware rose 37% over the year, including a remarkable 66% surge in the United States. Asia was the primary beneficiary, accounting for nearly two-thirds of all AI-related trade growth: Taiwan's 26% trade growth and Singapore's explosive export performance were both driven primarily by AI-related semiconductor and equipment trade. This is a structural inflection, not a cyclical bump — AI infrastructure investment is now the single most important demand-side driver of global trade, and its impact will only compound as data center buildout accelerates through 2026 and beyond. Valyrian steel may have been the rarest and most coveted metal in the Game of Thrones world; in 2025, that distinction belonged to semiconductors.

World trade was also supported by a set of timing effects as well as some structural shifts. First, U.S. firms frontloaded a significant share of imports into the first half of the year in anticipation of tariffs. Imports surged by an extraordinary 30% in March 2025 alone (Figure A8), pushing first-quarter imports to a record $1.2 trillion, compared with $990 billion in the following quarter, as firms stockpiled goods ahead of impending tariff increases. The flip side, of course, is that import growth has since weakened sharply, with volumes falling back in the second half of the

year and into early 2026. Second, and perhaps more importantly, even as Chinese exports to the United States cratered—falling by an extraordinary 26%—China's global exports adapted and redirected. Total exports reached an estimated all-time high of $3.7 trillion in 2025, while China's trade surplus also set a new record at $1.19 trillion, surpassing the $1 trillion mark for the first time.

Figure A7
Outsized Contribution to Trade from AI
(contribution to growth in trade value, percent)

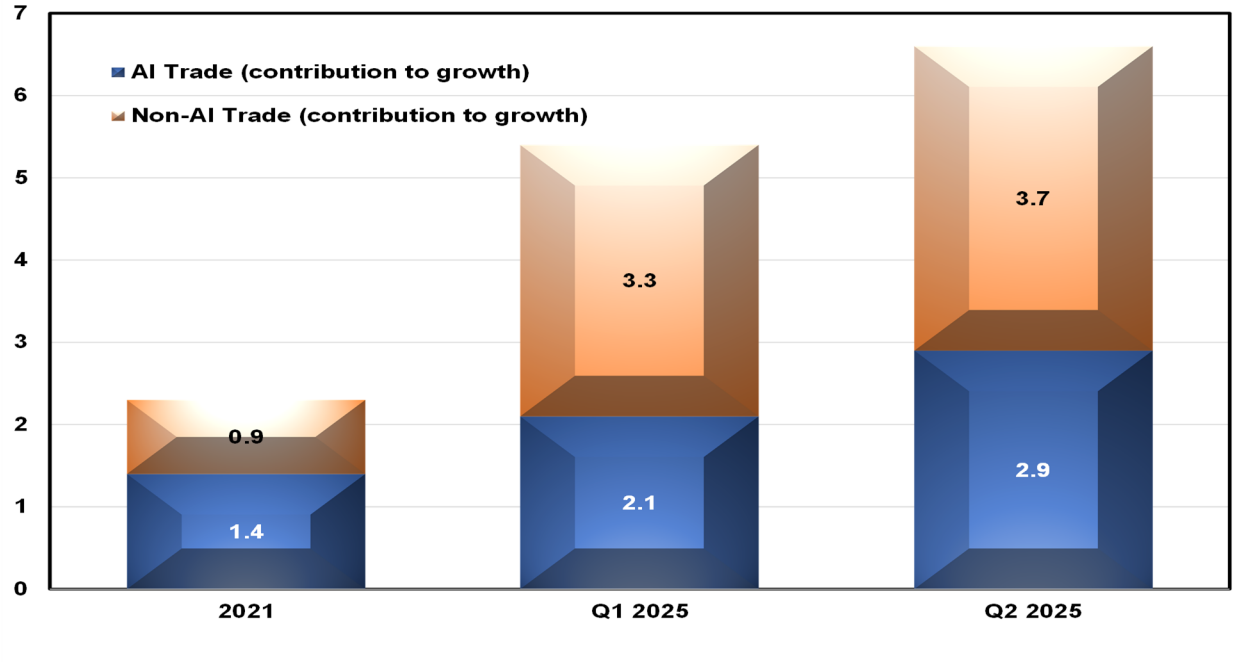
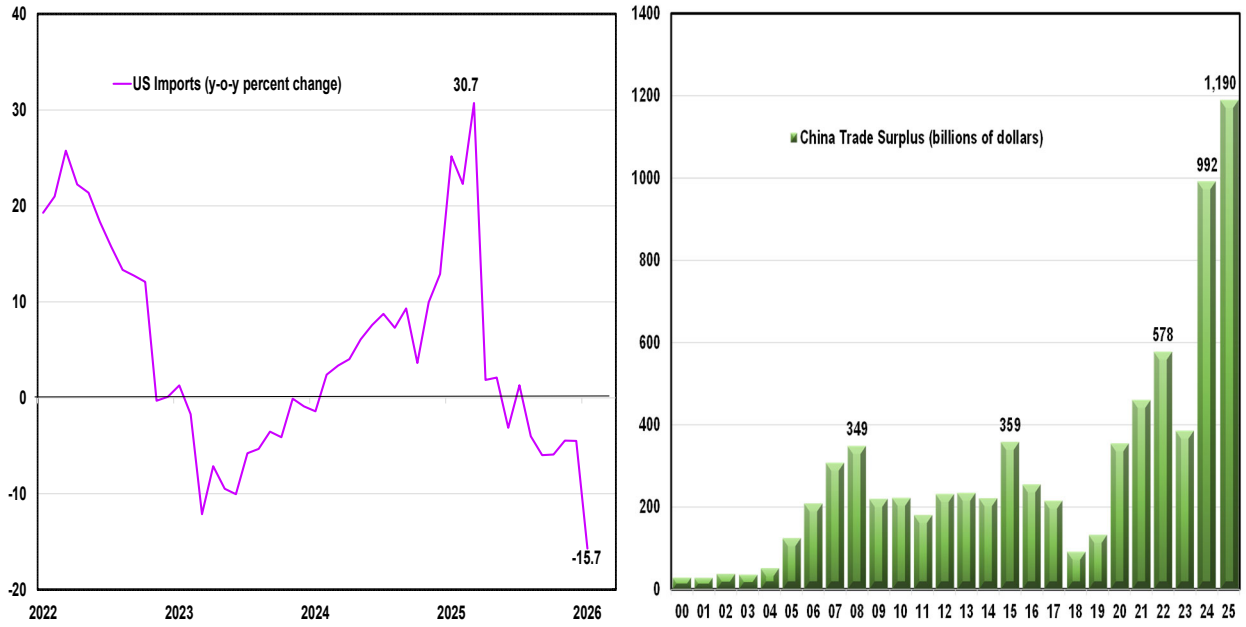


Figure A8
Some Support from Timing and Structural Shift
(U.S. imports, y-o-y percent change, China trade balance surplus, billions of dollars)



So yes, global trade has proven extraordinarily resilient in the face of extraordinary challenges. But aggregate trends tend to disguise pattern shifts: underneath the hood, global trade flows are undergoing tectonic changes — a rupture, not just a mere transformation. Two major geopolitical fault lines are clearly emerging — the slow-burning, increasingly bitter divorce between the United States and China, and the break between Russia and the West, now hardened into a deep and enduring divide. Outside them, however, the remaining 73% of global trade is not substantially realigning economic activity across geopolitical camps, at least not yet. This is one of the reasons why trade has remained resilient.

A second — and perhaps more consequential — factor is that the fragmentation among great powers itself is reshaping trade in ways that may ultimately strengthen it. Supply chains once optimized for efficiency are now being redesigned for resilience, with redundancy built in to absorb future shocks. As Bronn tells Tyrion, "I've seen you kill a man with a shield. You'll be unstoppable with an axe." Firms are, in effect, trading shields for axes — moving from passive efficiency to active resilience, driven by geopolitical shifts and strategic imperatives.

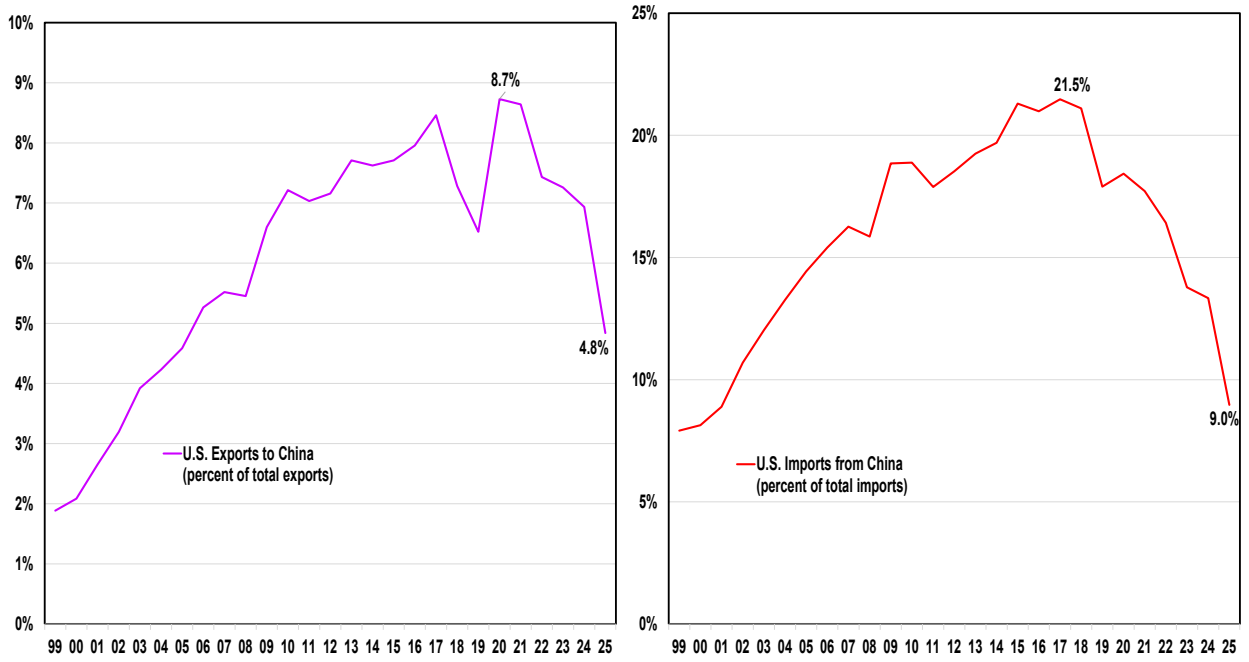
Consider first the U.S.–China breakup. After reaching a peak of 8.4% of total U.S. exports in 2017, exports to China now account for less than 5% (Figure A9). Chinese exports to the United States have undergone an even more dramatic adjustment, falling by a staggering $130 billion last year alone. The share of U.S. imports sourced from China has dropped from a high of 21% in 2018 to less than 9% today—returning to levels last seen in 2001, when China first joined the WTO. By contrast, trade between both countries and the rest of the world has not declined in tandem, suggesting that

the U.S.–China split reflects geopolitical tensions and policy actions rather than a broader retrenchment in global trade.

It is not just trade flows. The two powers are pursuing a broader, more decisive divorce across nearly every channel—from capital flows and foreign direct investment to M&A activity and scientific collaboration. By most measures, U.S.–China linkages have declined by roughly 35–45% relative to their 2016 levels. The U.S. share of China's greenfield FDI has fallen from 24% to 14% between 2016 and 2025, while M&A transactions have dropped from 16.7% to 7.7%.

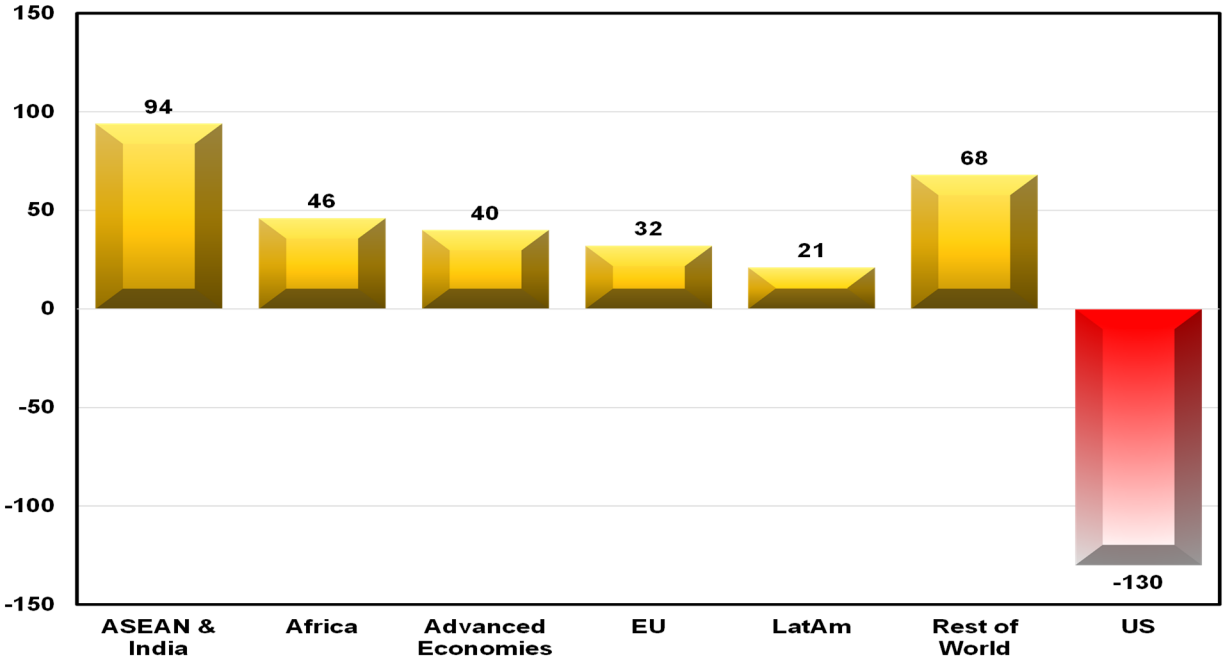
This stands in sharp contrast to trends elsewhere: U.S.-bound investment from the rest of the world has increased over the same period, while global M&A activity has remained broadly stable. The decline in scientific collaboration is even more pronounced. Co-authored publications involving at least one U.S.-based and one China-based researcher have fallen by roughly half—from about 30% in 2016 to around 15% today.

Figure A9
The Great Decoupling: Flows Between U.S. and China Have Declined Dramatically
(U.S. exports and imports, percent of total)



The decoupling has not translated into much in terms of overall balances: the US recorded its largest goods trade deficit on record last year at $1.24 trillion, and China its largest surplus. This is possible only because trade flows shifted dramatically beneath the surface. China lost access to the US market but expanded virtually everywhere else — up 8% to the EU, 13% to ASEAN, 7% to Latin America, and 26% to Africa. The lost American market share was almost single-handedly replaced by surging flows to ASEAN countries, where China exported $94 billion more than in 2024 (Figure A10). Exports to the eurozone added a more modest $32 billion, while those to Africa expanded by $46 billion — a hefty rise relative to the continent's GDP.

Figure A10
Chinese Exports Redirected from America to Other Countries
(Chinese exports 2025, billions of dollars)

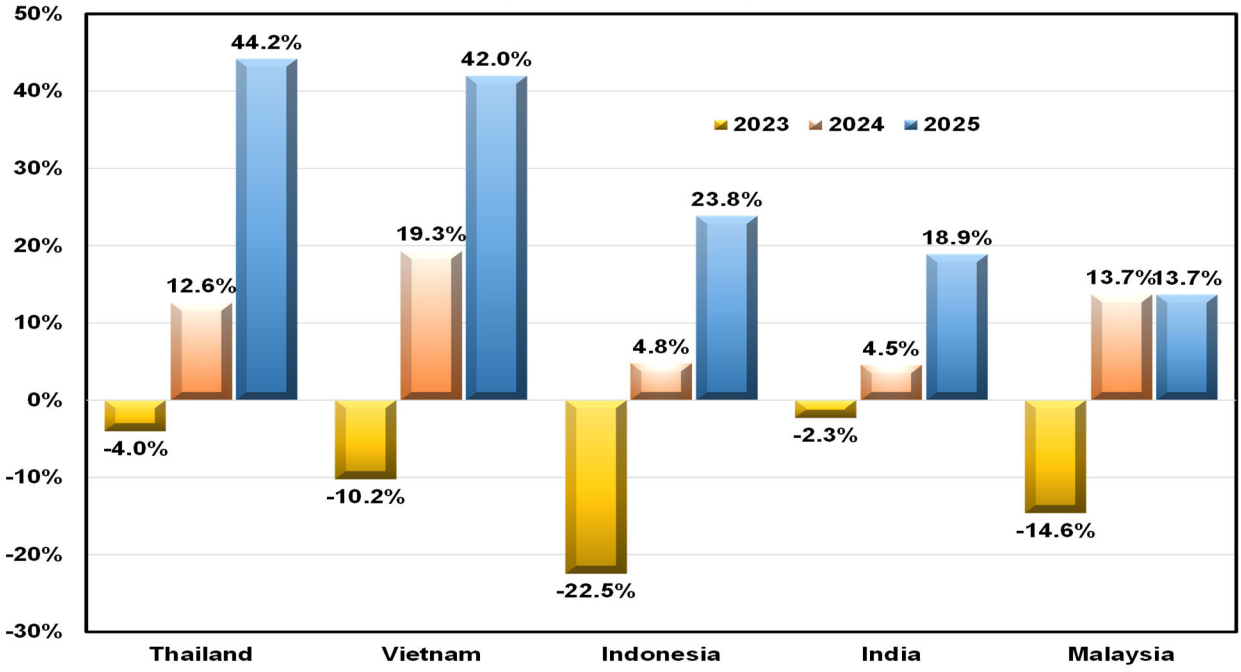


While direct U.S.–China flows appear to be rupturing, indirect flows remain quite robust. In effect, the United States may still be importing what are, in substance, Chinese goods—now routed through third countries. Chinese exports to major assembly and re-export hubs have surged, rising by 22.7% to roughly $198 billion in Vietnam, 20.6% to $97 billion in Thailand, 12.8% in India, and 11.2% in Indonesia (Table A2). U.S. imports from these same countries have climbed in tandem: in 2025 alone, imports rose by $57 billion from Vietnam (up by 42%), $28 billion from Thailand (up by 44.2%), and $16 billion from India (18.9%), despite higher tariffs (Figure A11). This helps explain the administration's growing focus on transshipment. It underpins the emphasis on stricter rules of origin in the USMCA renegotiation, the expansion of Section 301 investigations targeting circumvention, and the broader use of Section 232 measures. The USMCA channel, in particular, has already come under scrutiny: Chinese exports to Mexico were essentially flat last year (–1%), suggesting increased monitoring and enforcement.

Table A2
Evolution of Chinese Exports, 2022-2025
(billions of dollars)

Country	2022→23	2023→24	2024→25
Vietnam	-24%	+46%	+22.7%
Mexico	+14%	+4%	-1%
Thailand	+3%	+12%	+20.6%
India	+3%	+9%	+12.8%
Indonesia	+4%	+5%	+11.2%
United States	-14%	-7%	-19.8%

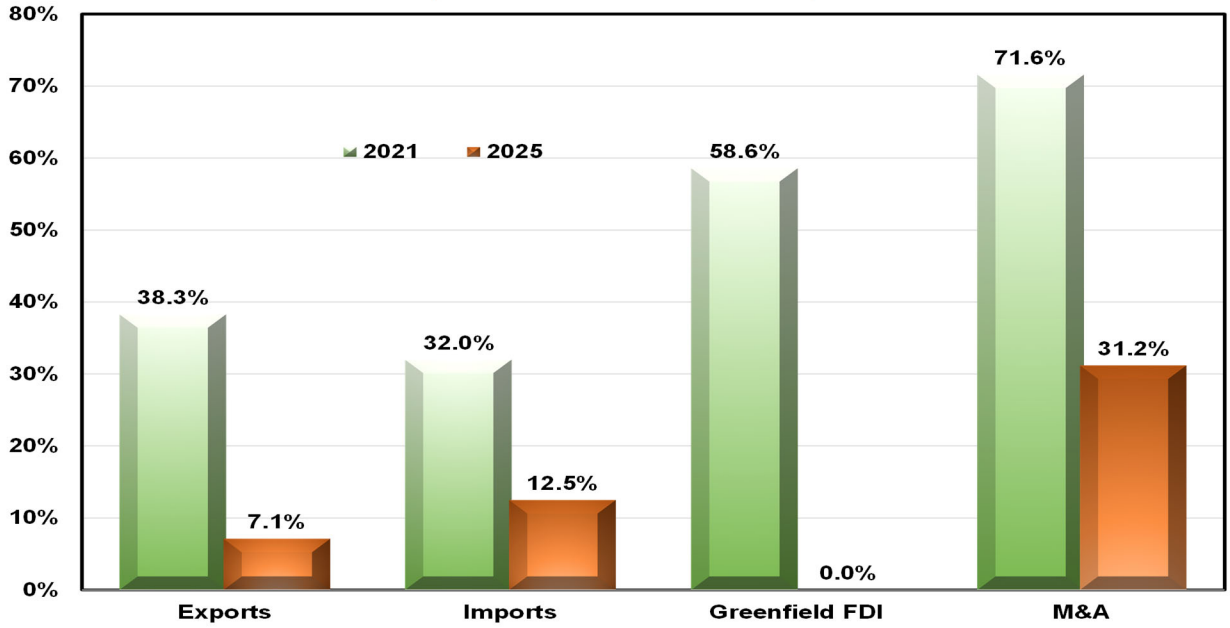
Figure A11
Evolution of U.S. Imports, 2022-2025
(billions of dollars)



The rupture between Russia and the West has been far more abrupt and enduring since its full-scale invasion of Ukraine in 2022 than the gradual, slow-burning separation between the United States and China. Prior to the war, the European Union was Russia's dominant economic partner across trade, capital flows, M&A, and FDI, accounting for roughly half of Russia's global economic linkages. In 2021, more than three-quarters (79%) of Russia's M&A inflows and 60% of its greenfield

FDI originated from Europe, while 38% of Russian goods exports were destined for the EU (Figure A12).

Figure A12
Russian Trade Flows with Europe
(total shares, 2021 and 2025)



Since the war, these ties have collapsed. Greenfield FDI from Europe has effectively fallen to zero, M&A flows have dropped to 31%, and exports to the EU have plunged from 38% to just 7%. Overall, trade between Russia and the EU has contracted by roughly 74% since the start of the war. Russia has, of course, pivoted to other partners to offset these losses—most notably China, India, and Turkey. China has emerged as Russia's dominant trading partner, accounting for 30% of its exports and 35% of its imports; yet Russia represents only about 4% of China's total trade, underscoring the asymmetry in the relationship. Turkey, meanwhile, has risen in importance, overtaking India as the second-largest importer of Russian hydrocarbons by late 2025, purchasing €2.6 billion in a single month—primarily refined oil products and pipeline gas.

B. A GAME OF THRONES: TARIFFS AND TRADE DEALS

Tywin Lannister: "A lion does not concern itself with the opinion of the sheep."
—Game of Thrones

"The man who passes the sentence should swing the sword," Ned Stark solemnly declared in the halls of Winterfell—a code of honor as stark and unforgiving as the North itself. Mercifully, for the U.S. (and the global economy), the sword was rarely swung with the full force the sentence demanded. When Mr. Trump unveiled his "Liberation Day" tariffs—the most sweeping unilateral trade action in a generation—the world held its breath and markets swooned. Tariffs ranging from

10% to a staggering 50% were imposed on 57 countries, while a universal 10% levy blanketed the rest of the globe. The sentence, as pronounced, sounded nothing short of catastrophic. And yet, barely a week later, the blade was stayed: most tariffs were paused for 90 days, ushering in a breathless round of negotiations. The chaotic months that followed saw a rolling cascade of exemptions, carve-outs, delays, and dealmaking. The sentence was thunderous, but the sword never swung in full. That gap—between the sentence and the swing, between threat and execution—defined the tariff story of 2025 as much as the tariffs themselves. Thus was born the "Trump Put"—or, as markets have come to dub it with a mix of relief and irreverence, the TACO trade (an acronym for Trump Always Chickens Out).

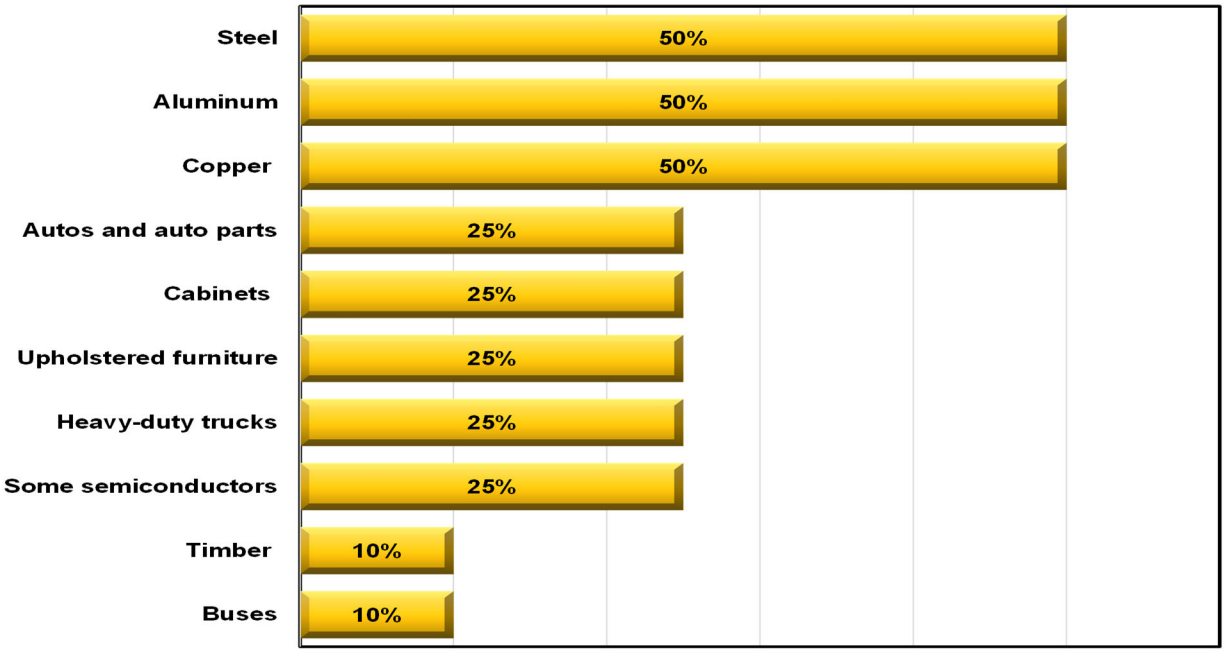
This more measured recounting of last year's tariff story, however, glosses over the high drama that unfolded throughout much of the year. As with everything Mr. Trump does, nothing is ever low-key—tensions flare before they cool, threats escalate, stakes are cast as existential, and uncertainty itself is wielded as a weapon. It makes for high-stakes drama—if a somewhat exhausted audience. For a brief but dizzying period between April and May, tariffs on China escalated from 34% to 104% to 145%, only to be ratcheted back down to roughly 30% by mid-May. In late July, Brazil was hit with a punitive 50% tariff, framed as a national emergency but widely seen as retaliation for legal actions against former President Jair Bolsonaro (and perhaps its growing role within BRICS), before agricultural exemptions—covering coffee, beef, and fruit—were quietly granted in November. India's initial 25% tariff rate was likewise doubled to 50% in response to its continued purchases of Russian oil, then scaled back to 18% in early February 2026 after Indian Prime Minister Narendra Modi agreed to pivot away from Russian crude and toward American energy—though India has since been granted renewed flexibility amid skyrocketing oil prices due to the war in Iran.

Some of the most outlandish threats never materialized. In October, Mr. Trump threatened—then walked back—a 100% tariff increase on China in response to its export controls on rare earths. Canada was targeted multiple times with tariffs ranging from 10% to 100%—the former over Ottawa's anti-tariff ads aired on U.S. networks during the World Series (featuring president Reagan, no less), and the latter tied to its recent rapprochement with China. South Korea was threatened in January with an increase in its tariff rate from 15% to 25% over delays in ratifying a U.S. trade deal. Eight European countries were also put on notice, facing tariffs of 10% (to be raised to 15% by June)—unless Denmark ceded Greenland to the United States. Tariffs of 25% were also threatened on countries importing Iranian oil.

Amid this geopolitical realignment of global trade, it is easy to forget that Mr. Trump's steepest tariffs are not directed at metaphysical constructs like nation-states, but at the physical world itself—entire industries, from steel and copper to lumber and even kitchen cabinets, have borne the brunt of his most punitive levies. The list of targeted goods is both large and growing: a 50% tariff on steel, aluminum, and copper imports; 25% on autos and auto parts, cabinets, upholstered furniture, heavy-duty trucks, and some semiconductors, and 10% on timber and buses (Figure B1). These measures rest on Section 232 of the Trade Expansion Act of 1962, which allows

the United States to restrict imports deemed a threat to national security—however expansively defined. Apparently, that definition now begins and ends in the American bathroom.

Figure B1
Tariffs on Some Sectors are High and Likely to Persist
(tariff rate, select sectors)



More are on the way. "If you think this has a happy ending, you have not been paying attention," Ramsay Bolton's chilling words ring all too true here. That is in part because Section 232 carries far more enduring authority than the country-specific IEEPA framework, which was unceremoniously struck down by the Supreme Court in February. A raft of investigations is already underway, spanning pharmaceuticals, critical minerals, semiconductors, shipbuilding, aircraft, and medical devices. Mr. Trump has also threatened tariffs of 100% on foreign films, 200% on French wine and spirits, and 92% anti-dumping duties on Italian pasta—though, for the sake of this forecast, we can only hope the latter two never come to pass, as one of your favorite (and humble) economists happens to subsist on French wine and Italian pasta, especially while writing this report.

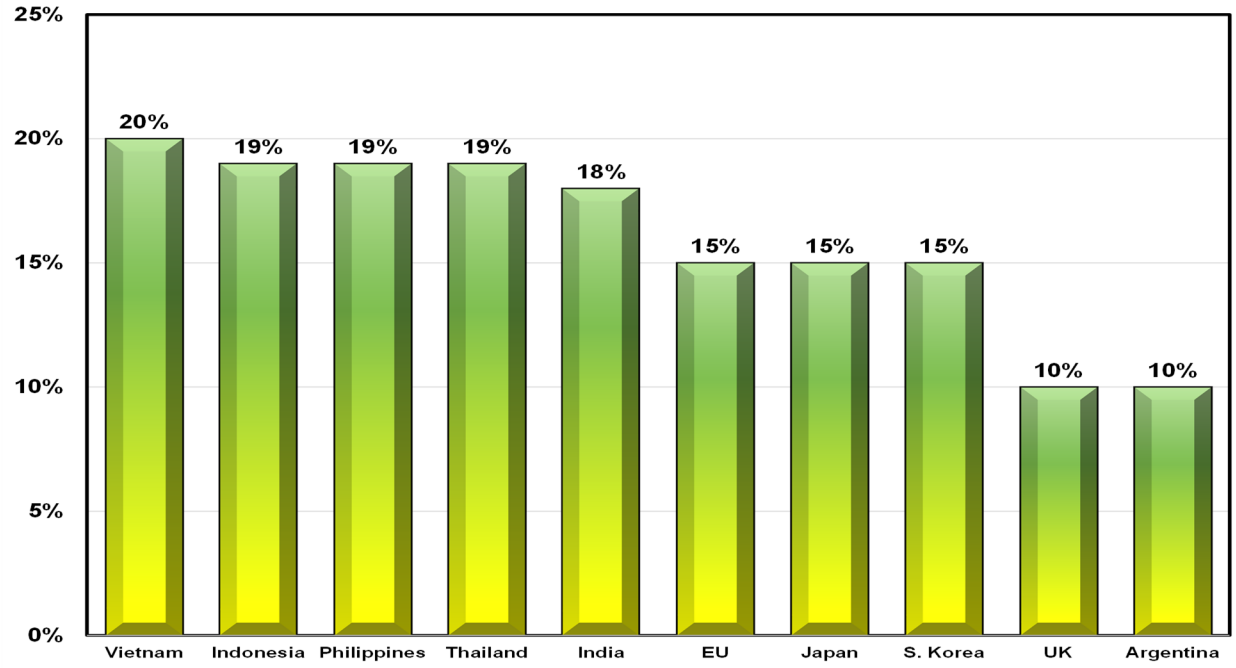
Tariffs—whether threatened or imposed—have had real effects. While the administration fell short of its pledge to secure "90 trade deals in 90 days" last April, the United States has nevertheless signed a flurry of agreements with key trading partners. By November 2025, the White House counted nine framework deals, two final reciprocal trade agreements, and two investment agreements. By early 2026, that roster had expanded to include virtually every major U.S. trading partner.

In total, the administration has concluded five final reciprocal trade deals, alongside roughly a dozen looser "framework" agreements with partners such as the EU and India. These latter deals are deliberately thin on detail: often fewer than a dozen pages and heavy on broadly worded

commitments. Almost all included concessions by trading partners to purchase more American goods, open their markets to U.S. firms, increase investment in the United States, or commit to buying American oil and gas—all while facing higher U.S. tariffs and lowering their own on U.S. exports. All had one unifying feature in common: overwhelmingly—almost embarrassingly—one-sided in favor of the U.S. As French Prime Minister François Bayrou, put it: "It is a dark day when an alliance of free peoples, brought together to affirm their common values and to defend their common interests, resigns itself to submission."

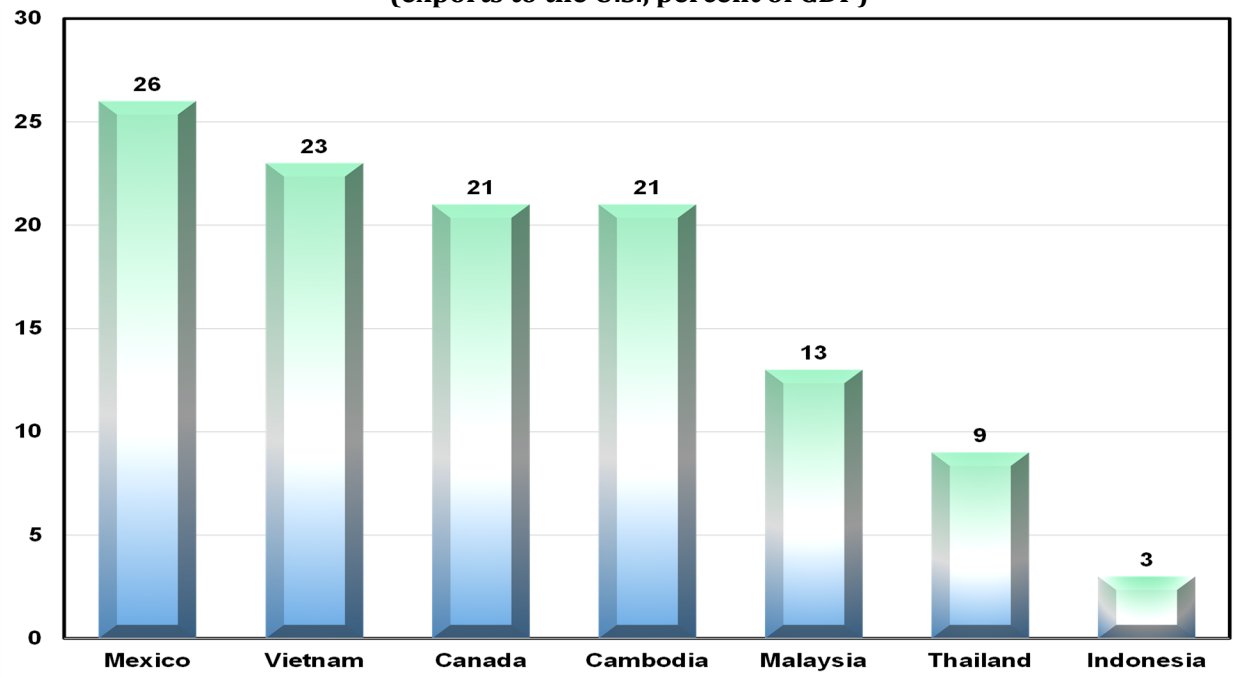
Countries with less heft and large exposure to US trade — Vietnam, Cambodia, Malaysia, Thailand, and Indonesia — paid the highest price. Each received a reduction from eye-watering Liberation Day rate — Vietnam from 46%, Cambodia from 49%, Thailand from 36%, Indonesia and Malaysia from 32% and 25% respectively — down to a uniform 19%-20% (Figure B2). In return, each gave away considerably more: zero or near-zero tariffs on all American goods, elimination of non-tariff barriers, rules of origin commitments targeting transshipment, and critical minerals cooperation. Vietnam faced an additional 40% tariff on any goods deemed transshipped — a barely veiled anti-China measure targeting its entire re-export model. Cambodia and Malaysia went further still, agreeing to adopt US tariffs on third countries, align with US export controls, and — in Malaysia's case — accepting a termination clause if it enters a trade agreement with any country that "jeopardizes essential US interests." Cambodia and Thailand received their deals only after agreeing to a US-brokered ceasefire in their bilateral border conflict — making trade concessions the price of both market access and peace. None of the agreements addressed semiconductors — a critical export for Malaysia in particular — or provided relief from Section 232 sectoral tariffs.

Figure B2
Tariffs on Partner Countries Were Reduced Under Trade Deals
(statutory tariff rate)



It's hard to see how these agreements sit comfortably with these trading partners, many of whom would much rather occupy the uneasy neutrality that straddles the gulf between the United States and China than the treacherous terrain of either camp. Yet they may have little choice, at least in the short run: Exports to the U.S. account for a hefty 30% of Vietnam's total exports — equivalent to 23% of its GDP — and a staggering 37% of Cambodia's, or 21% of its GDP. Malaysia sends 14.5% of its exports to the US, nearly 13% of its GDP. Thailand and Indonesia are somewhat less exposed — 17% and 9% of total exports, 9% and 3% of GDP respectively — but hardly insulated (Figure B3). It is by now painfully clear that the U.S. sees these agreements less as trade deals and more as instruments of strategic alignment, quietly constructing a China-containment architecture, one bilateral agreement at a time—a dynamic that eerily echoes Cersei Lannister's stark maxim: "Everyone who isn't us is an enemy."

Figure B3
U.S. Exposure is Very Large for Some Countries
(exports to the U.S., percent of GDP)



Countries with greater leverage—the EU, Japan, South Korea, and Taiwan—conceded less, though still far more than what a genuinely reciprocal negotiation would produce. All face a 15% reciprocal tariff rate, down from threatened levels of 25–32%, and secured relief on autos, pharmaceuticals, and semiconductors. In exchange, they committed to purchasing U.S. products—chiefly oil and gas—and investing more heavily in the United States. The EU pledged $750 billion in U.S. energy purchases through 2028 and $600 billion in new investment—despite importing only $72 billion in U.S. energy in 2025, implying that annual purchases would need to roughly triple to meet the target, a gargantuan feat. Japan committed to $8 billion in annual agricultural purchases, $7 billion in annual energy imports, and $550 billion in investment in strategic U.S. sectors, along with a profit-sharing arrangement allocating 90% of returns to the United States once principal is repaid. South Korea pledged $350 billion in investment—$150 billion earmarked for U.S. shipbuilding—alongside $150 billion in LNG purchases. Taiwan committed $500 billion in semiconductor and AI investments over an undefined horizon, an extraordinary sum relative to the size of its economy. As one economist quipped, the arrangement resembles a version of "Chinese capitalism with American characteristics." Whether these commitments will fully materialize remains uncertain, particularly given that many of the agreement frameworks are thin on detail and rather difficult to enforce.

India also wrangled a middling deal, offering targeted and limited concessions rather than sweeping ones. It secured a reciprocal tariff rate of 18%—down from a peak of 50%—along with exemptions for generic drugs, aircraft parts, and auto components. In return, India agreed to eliminate or reduce tariffs on U.S. industrial goods and on a narrow range of agricultural products—tree nuts, red sorghum, fruits, soybean oil, wine, and spirits—while carefully shielding its most

politically sensitive sectors: dairy, rice, and wheat. India also pledged to purchase $500 billion in U.S. energy, technology, aircraft, and precious metals over five years, and to halt purchases of Russian oil—though the target appears quite outlandish given that total U.S. exports to India currently run at roughly $50 billion annually. The agreement itself is among the flimsiest. Following the initial announcement, India remained silent for several days, and after subsequent pushback, the word "commitment" was quietly downgraded to "intent," while references to removing India's digital services tax—originally part of the framework—disappeared entirely.

Countries in America's backyard—the Western Hemisphere—were treated with a much lighter touch and considerably more goodwill, perhaps reflecting what has come to be known as the "Donroe Doctrine"—a 21st-century makeover of the Monroe Doctrine aimed at reasserting U.S. dominance in the Western Hemisphere, this time directed squarely at China rather than the European powers of yore. El Salvador and Guatemala found themselves in the enviable position of facing only modest tariffs—just 10%—while Ecuador was assessed a slightly higher 15% rate. Ecuador secured exemptions for bananas, coffee, cocoa, and other key agricultural exports to the United States, while El Salvador and Guatemala saw Liberation Day tariffs on textiles and apparel restored to zero under CAFTA-DR. In exchange, all three agreed to open their markets to U.S. agricultural goods and committed to intellectual property reforms, digital trade alignment, and anti-forced-labor provisions. Crucially, none were asked to mirror U.S. tariffs on China, or reconfigure their trade relationships with China.

The countries that ultimately secured the most favorable deals were the United Kingdom and Argentina—the former benefiting from the vestiges of a nostalgic "special relationship" (though, as Mr. Trump wistfully put it recently, it is no longer not quite "what it used to be"), and the latter from a genuine ideological alignment between Mr. Milei and Mr. Trump. Both received capped tariff rates of 10% and significant carve-outs. Argentina secured exemptions for 1,675 products, including politically sensitive beef exports. The United Kingdom obtained preferential treatment for its first 100,000 vehicles, which enter the U.S. at 10% rather than 27.5%; aerospace components and pharmaceuticals were made entirely tariff-free; and British steel remained at 25%, while tariffs for most other countries were raised to 50%. In return, the UK agreed to open its market to U.S. beef and ethanol, while Argentina reduced tariffs on 221 categories of U.S. goods and committed to intellectual property reforms and supply-chain coordination.

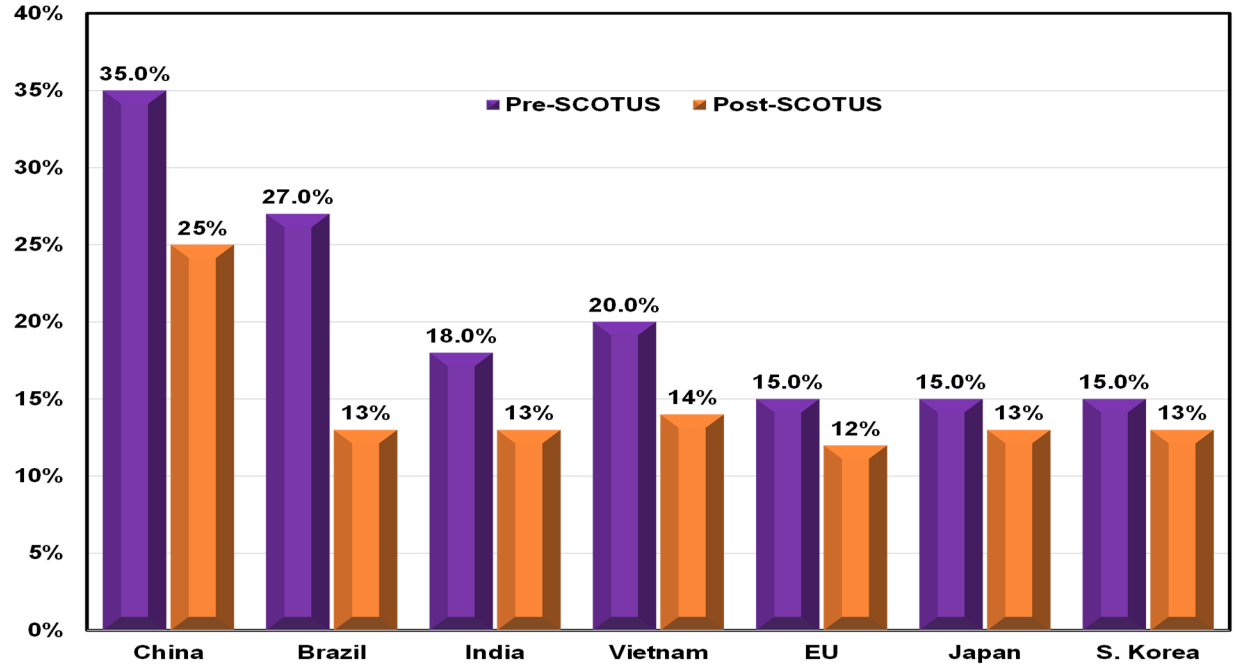
The fate of these trade deals is now in limbo following the Supreme Court's resounding smackdown of the administration's use of IEEPA powers, on which much of the tariff architecture—and the deals built upon it—rested. As we had expected, the court ruled that the statute itself does not authorize the use of tariffs, that stretching IEEPA to cover broad-based tariff authority violated the "major questions" doctrine (which requires clear and unambiguous statutory authority for executive actions with significant economic consequences), and that the power to tax lies exclusively with Congress, not the president. In one fell swoop, the High Sparrow had dethroned the Queen—a decisive institutional check on sweeping executive power.

The problem, however, is that while the court's decision may have permanently removed the chaotic nature of tariffs–levies imposed on anyone, for any reason, and for any length of time—it may also have unleashed a period of turmoil potentially even more disruptive than the Liberation Day tariffs themselves. First, the court remained silent on what to do with the roughly $166 billion in tariff revenue already collected. U.S. Customs and Border Protection—the agency responsible for collecting the duties—has acknowledged that it lacks the technical capacity to process refunds for more than 330,000 importers across roughly 53 million customs entries. Second, and perhaps more subtly, the fate of the agreements themselves is unclear. Many of these deals rest on shaky legal ground now that the IEEPA foundation underpinning the tariff architecture has been removed.

Most importantly, Mr. Trump appears just as determined to rebuild his tariff wall—this time brick by brick—creating new layers of uncertainty and likely a fresh crop of legal challenges. Immediately following the Supreme Court's decision, he imposed a universal 10% tariff—levied on top of Most Favored Nation (MFN) rates–under Section 122 of the Trade Act of 1974, which allows the president to impose temporary tariffs to address balance-of-payments deficits. He has already threatened to raise the rate to 15%, the maximum permitted under the statute. Yet this authority comes with its own legal vulnerabilities. When Section 122 was enacted, the dollar was tied to gold and U.S. gold reserves were dwindling, raising genuine concerns about balance-of-payments pressures. None of those conditions apply today: the dollar has been off the gold standard for more than five decades, which means Section 122 will almost certainly face legal challenges on these grounds.

Perhaps the biggest issue lies at the very core of Section 122. First, the authority can only be applied for 150 days, after which it requires congressional reauthorization—something Mr. Trump is unlikely to secure. Second, and more fundamentally, Section 122 tariffs are applied indiscriminately, striking at the heart of the "reciprocal tariffs," which were designed to reward countries the United States sought to draw more closely into its orbit and penalize recalcitrant ones. Indeed, countries such as China and Brazil, which were severely punished under IEEPA, would come out ahead under Section 122—even if the rate were raised to 15%. Brazil's effective tariff rate would fall from roughly 27% to about 13% (accounting for exemptions), while China's would decline from around 35% to roughly 25% (Figure B4). By contrast, countries that negotiated more favorable deals—such as the EU, Japan, and the UK—would face effective rates closer to 17–18%, as the 15% levy is layered on top of existing MFN tariffs. Unsurprisingly, the response from these partners has been swift and pointed. "A deal is a deal," the European Commission declared after Mr. Trump threatened to raise levies to 15%. For now, the EU is set to ratify the trade deal after pausing it for clarification including adding a suspension clause should the US impose further tariffs.

Figure B4
Greatest Beneficiaries of SCOTUS Decision: China and Brazil
(tariff rate before and after SCOTUS decision, percent)



But Section 122 tariffs will likely run their course through late July, after which they are expected to be replaced with more battle-tested and well-established trade statutes. Section 301 — which empowers the U.S. Trade Representative to investigate unfair foreign trade practices and impose retaliatory tariffs — was widely deployed during the first Trump Administration against China, while Section 232, which targets specific sectors on national security grounds, is another key tool. Unlike IEEPA, Section 301 is more procedurally demanding, requiring detailed fact-finding and public comment, and although it carries no sunset provision, it includes a mandatory four-year review under which tariffs terminate unless domestic industries request continuation, triggering a USTR review. Section 232 is significantly more flexible — requiring a less onerous process, imposing no time limits, and carrying no mandatory review requirements. Importantly, neither places caps on how high tariffs may go. Both have survived seven years of legal challenges since the first Trump Administration and are now deeply entrenched — what U.S. Trade Representative Jamieson Greer has described as a "durable replacement architecture." As House Greyjoy's words remind us: "What is dead may never die — but rises again harder and stronger." IEEPA is dead but Sections 232 and 301 are rising again – harder and stronger – in its place.

Indeed, work to rebuild the tariff wall is already underway. An ever-expanding list of industries is expected to be ensnared under Section 232 — a favorite of Mr. Trump given its relatively light procedural requirements. Section 301 is moving even faster. Less than three weeks after the Supreme Court decision, the U.S. Trade Representative launched Section 301 investigations targeting 16 economies for structural excess capacity in manufacturing: China, the EU, Singapore, Switzerland,

Norway, Indonesia, Malaysia, Cambodia, Thailand, Korea, Vietnam, Taiwan, Bangladesh, Mexico, Japan, and India. The following day, the list expanded dramatically to 60 economies for alleged failures to enforce bans on goods produced with forced labor. The logic is fairly simple: many of the economies included in the overcapacity probe overlap with countries with which America entered framework agreements over the past year. The investigations are designed to lock in Section 301 tariffs at the rates established in those agreements before Section 122 authority expires on July 24. Public comments are due April 15, with hearings scheduled to begin May 5.

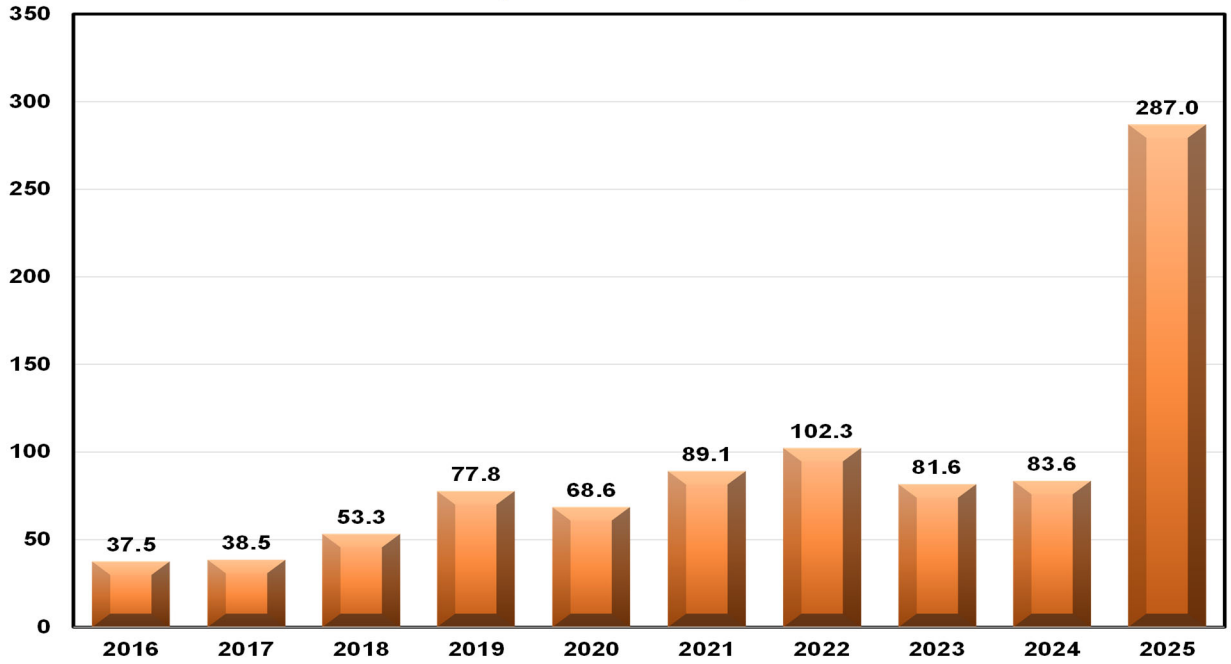
There is one last arrow the administration could reach for in its quest to reconstruct its tariff architecture: Section 338 of the Tariff Act of 1930 — nearly a century old, born in the infamous era of Smoot-Hawley, and never used. On its face, it appears as broad and unconstrained as IEEPA, directing the president to impose tariffs "whenever he shall find as a fact" that a foreign country places a burden or disadvantage on U.S. commerce through unequal impositions or discrimination. The only constraint is a 50% ceiling, but even that may not be a meaningful deterrent, given that no country (save for China briefly) exceeded this threshold last year after the dust settled from the Liberation Day tariffs. The deeper limitation lies in the statute's underlying logic: It was designed for cases where a country treats U.S. goods discriminatorily relative to other trading partners — a condition that is difficult to establish under WTO rules, where the cardinal principle is non-discrimination through Most Favored Nation (MFN) tariffs applied uniformly across members. To be sure, the USTR could parse country by country and product by product to identify instances where a Section 338 duty might apply, but that is precisely the point: Section 338 is a scalpel, not a sledgehammer — ill-suited for the sweeping tariff architecture the administration appears to be rebuilding through Sections 301 and 232.

All this suggests that tariffs will be with us for some time — at least for the duration of the current administration, but likely even beyond. The more important question, then, is whether, one year in, they have achieved any of the administration's goals. That is harder to determine than it may seem, not least because the Trump Administration appears to view tariffs as a multipurpose tool designed to address a wide range of objectives: countering unfair trade practices, strengthening supply chains, reindustrializing America, narrowing lopsided trade imbalances, reducing strategic vulnerabilities, raising revenue, addressing both economic and non-economic foreign policy concerns — from fentanyl and immigration to the Panama Canal and Greenland — and gaining negotiating leverage. In this sense, tariffs have become part of a broader economic statecraft toolkit, where economic power is wielded alongside political and military power.

Take tariff revenues first. Prior to the Supreme Court decision, the outcome would have to be viewed as a resounding success, delivering a striking fiscal windfall. In 2025, U.S. customs duties totaled roughly $287 billion — more than three times the $83.6 billion collected in 2024 and remarkably close to the $280 billion we had projected a year earlier (Figure B5). Now, however, roughly $166 billion collected under IEEPA may need to be refunded — equivalent to about 5% of

corporate profits generated in the United States last year, or roughly 0.6% of GDP — with interest compounded daily at an annual rate of 6%–7%.

Figure B5
Tariff Revenues Have Skyrocketed
(billions of dollars)



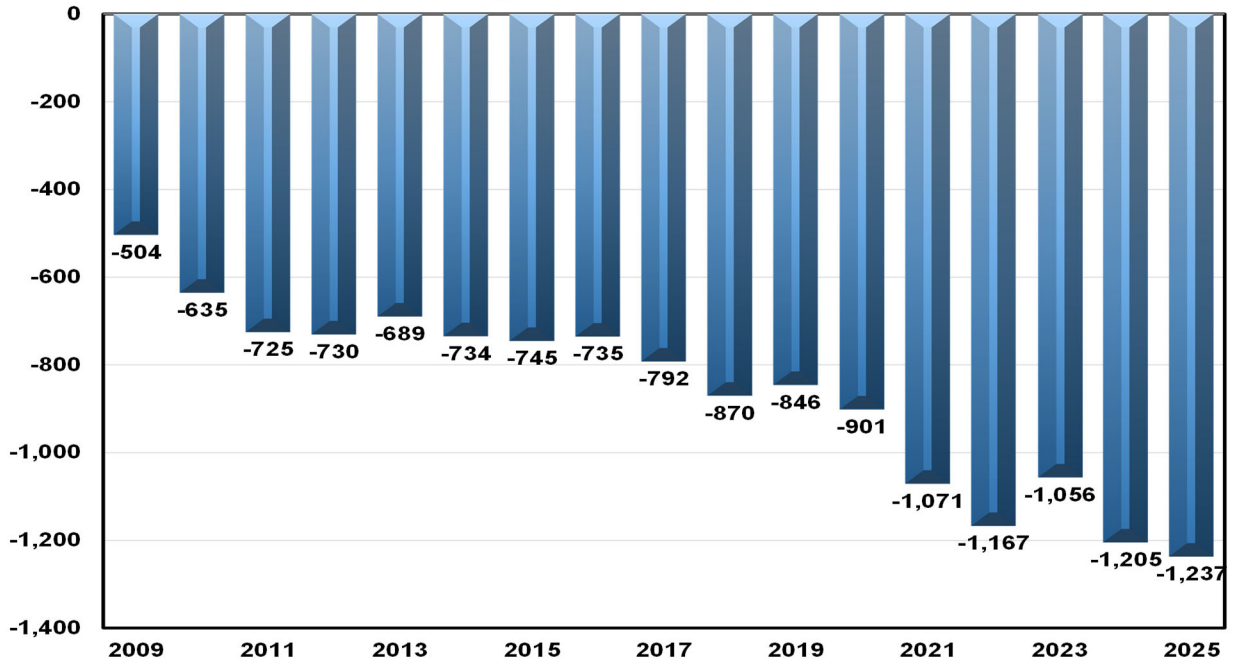
The administration will not make the process easy, slow-walking the refunds and reckoning that protracted litigation will outlast the patience — and legal budgets — of the small businesses that bore much of the burden. The administration is also reportedly counting on some firms forgoing claims altogether, particularly those that have already passed tariffs on to consumers. Some large companies may also decide to tread lightly to avoid drawing the ire of Mr. Trump, who has shown little hesitation in targeting firms publicly on Truth Social. Treasury Secretary Scott Bessent has been characteristically blunt about the odds: "I got a feeling the American people won't see it" — a remark that reads as both a prediction and, perhaps, a strategy.

Our view is that some refunds will ultimately materialize, but the process will likely take years. In the meantime, the new tariff edifice being constructed on the foundations of Sections 301 and 232 is likely to generate comparable revenue in 2026 — in our estimation, roughly $250 billion. This is higher than some models suggest, because we never discount the Trump Administration's determination to rebuild more or less the same-height tariff wall, only now with reinforced steel and concrete instead of mere bricks.

Tariffs have had a decidedly more mixed effect when it comes to addressing the yawning trade deficit between America and the world. The U.S. goods trade deficit remained virtually unchanged last year at roughly $1.2 trillion. Perhaps the only solace is that it did not deteriorate further: in 2024 alone, the deficit widened by $148 billion (Figure B6). Beneath the surface, however,

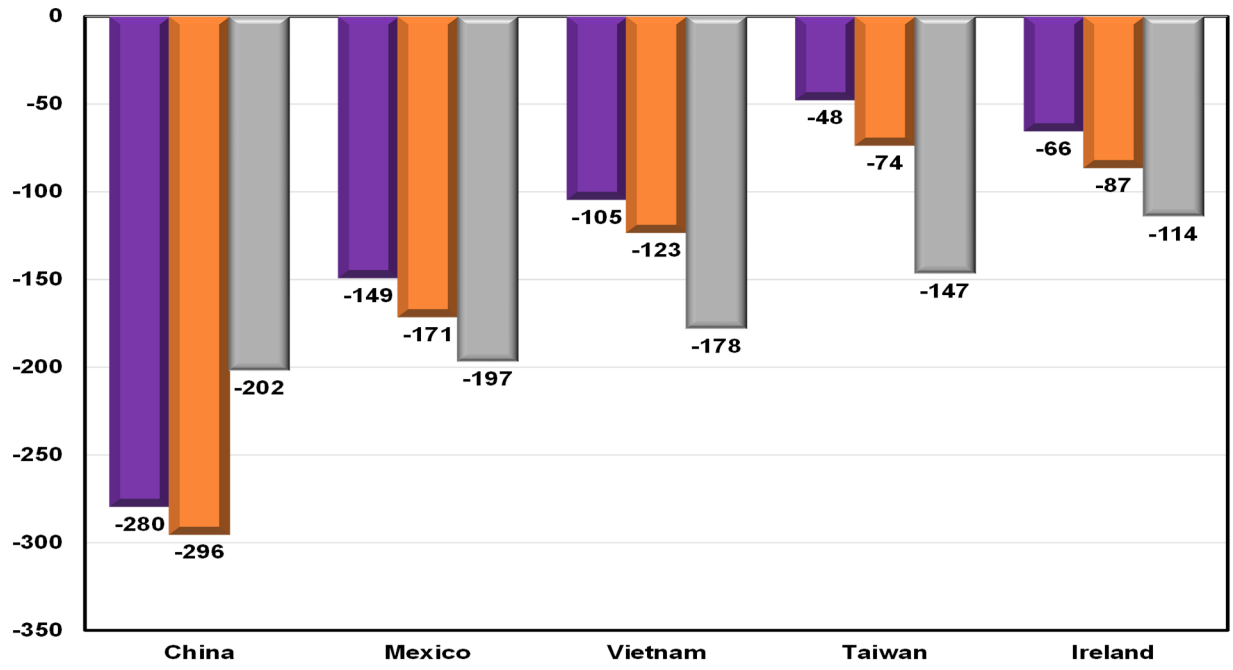
seismic shifts are underway. Trade deficit with China shrank dramatically, from nearly $300 billion in 2024 to $202 billion in 2025 (Figure B7). The longer-term trend is even more striking: the deficit with China peaked at $387 billion in 2022 and is now almost half that size.

Figure B6
Transformed but Not Eliminated: Trade Deficit at Record Level
(billions of dollars)



But deficits with other countries have grown in tandem. Trade deficit with Mexico now stands at $196 billion — the second largest after China — roughly double its pre-COVID level (Figure B7). The deficit with Vietnam, now the third largest, has climbed to $178 billion from just $66 billion before the pandemic. Both reflect supply chain shifts away from China following Mr. Trump's first trade war and their further acceleration during the second. AI has also played a role as well: the trade deficit with Taiwan has surged to $147 billion — triple its level just two years ago — driven largely by booming semiconductor imports.

Figure B7
Reshuffled: Trade Deficit with China has Declined but Increased Dramatically with Others
(billions of dollars)



In short, trade deficits have morphed rather than disappeared, shifting away from China and toward other trading partners. If the goal was decoupling from China, tariffs have had their intended effect. But a mere reshuffling of imbalances is unlikely to satisfy Mr. Trump, who appears to be seeking a meaningful narrowing — if not outright elimination — of the deficit. As we have warned in this space, that will not be easy. In the words of Tyrion Lannister, "It's not easy being drunk all the time. Everyone would do it if it were easy."

Reindustrializing the U.S. manufacturing base is another pillar of the Trump Administration's agenda. It is right to focus on this issue: China's rise to manufacturing preeminence presents an existential challenge to the United States — not only in terms of economic growth, but also geopolitical power. There is little doubt that the US has become heavily dependent on China for critical goods, ranging from drones and smartphones to pharmaceuticals and personal computers. Moreover, as China has become deeply embedded in global supply chains — not just with America, but across the world — its leverage has grown considerably, giving it the ability to exert meaningful economic pressure in pursuit of strategic and geopolitical objectives.

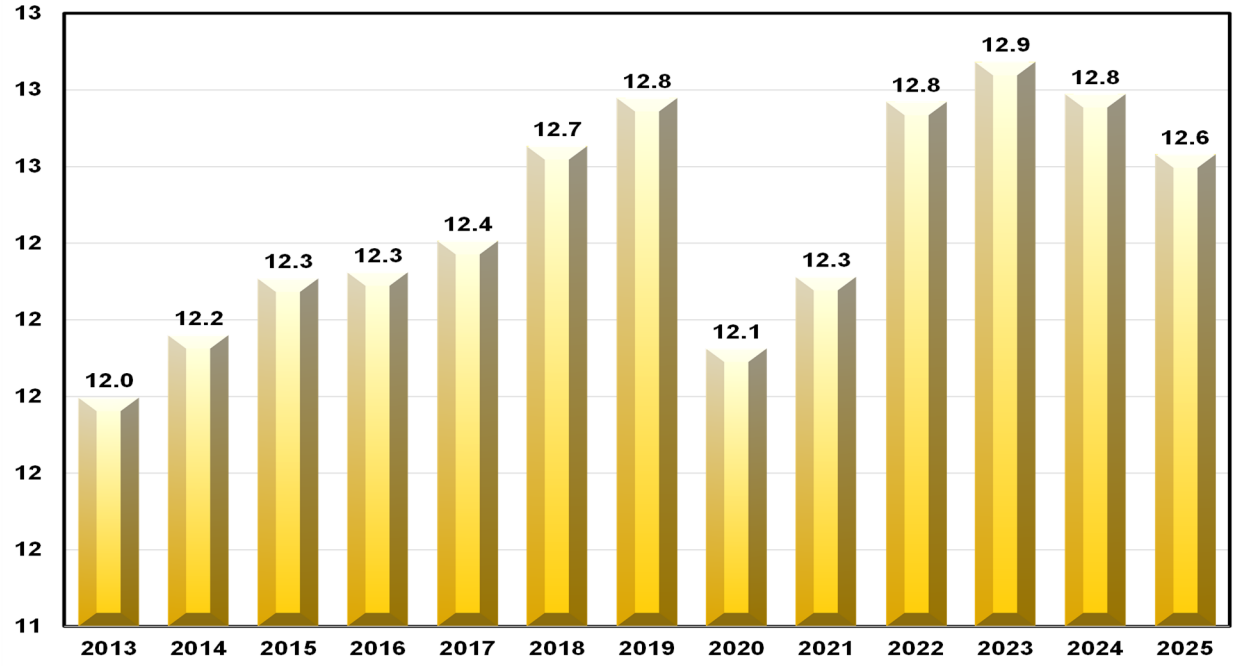
The figures tell a jarring tale: China's manufacturing value-added in nominal dollar terms stands at $4.7 trillion, whilst America's is $2.9 trillion — meaning China's manufacturing output is 62% larger than America's even though its economy is 36% smaller. But even these numbers obscure reality, given the significant undervaluation of the renminbi, which trades at roughly half its purchasing power parity value. Adjusted for this, China's manufacturing dominance likely dwarfs that of the US by an even more formidable margin. In automobiles, China produced nearly three times as many cars as the US in 2023 — 30 million versus 10.6 million. In shipbuilding, it commands more

than 50% of the global market and is the leading manufacturer in 14 out of 18 vessel categories. In steel, it produces more than the rest of the world combined, with a global market share of 53% — or roughly 12 times US production. The United States, for its part, produces just 4% of the world's steel. America has attempted to reverse this imbalance in recent years through different policy approaches. The Biden Administration revived industrial policy through subsidies and targeted investment, while Trump, in both his first and second terms, relied primarily on tariffs. Yet neither strategy has addressed — in a coherent and systematic way — the formidable challenges of meaningfully rebuilding the U.S. manufacturing base. Matching domestic manufacturing output to domestic demand would require a roughly 40% increase in U.S. manufacturing value-added — about $1.2 trillion. At current productivity levels, achieving this would require approximately 5 million additional manufacturing workers, or about 3% of the entire U.S. employed workforce. In absolute terms, that would imply rebuilding manufacturing employment to levels comparable to those seen before China's entry into the World Trade Organization in the early 2000s.

Numerous obstacles stand in the way. Compliance with federal regulations — spanning health and safety, environmental rules, taxes, and homeland security — now costs manufacturers roughly $349 billion annually, a 26% increase in real terms since 2012. On a per-worker basis, these compliance costs are roughly equivalent to total value-added per worker in China. Labor constraints are equally daunting: U.S. manufacturing employs about 12.7 million workers but already faces roughly 500,000 unfilled vacancies. Expanding the workforce by another 5 million would require that roughly 25% of all new labor force entrants over the next decade choose manufacturing — a dramatic reorientation that current policy tools, including tariffs, have not meaningfully addressed. As Tim Cook, Apple's boss puts it: "companies go to China because of the skill, and the quantity of the skill in one location. In the US, you could have a meeting of tooling engineers and I'm not sure we could fill the room."

All this suggests that revitalizing the manufacturing sector was always going to be a tall order, and the administration's efforts have yet to bear fruit. Manufacturing employment fell for a second consecutive year last year, shedding an estimated 157,000 jobs on top of the 84,000 lost in 2024 (Figure B8). In fact, manufacturing employment has been on a modest secular decline since peaking at a post-pandemic high of nearly 13 million in 2022, falling by roughly 300,000 jobs since then. To be sure, tariffs have supported some domestic employment (and prices) in heavily protected industries — particularly primary metals, benefiting from steel and aluminum tariffs — but these gains were more than offset by losses in downstream sectors that rely on these inputs, including machinery, computers, and transportation equipment, which experienced some of the steepest employment declines.

Figure B8
A Tough Couple of Years for Manufacturing
(employment, millions of workers)



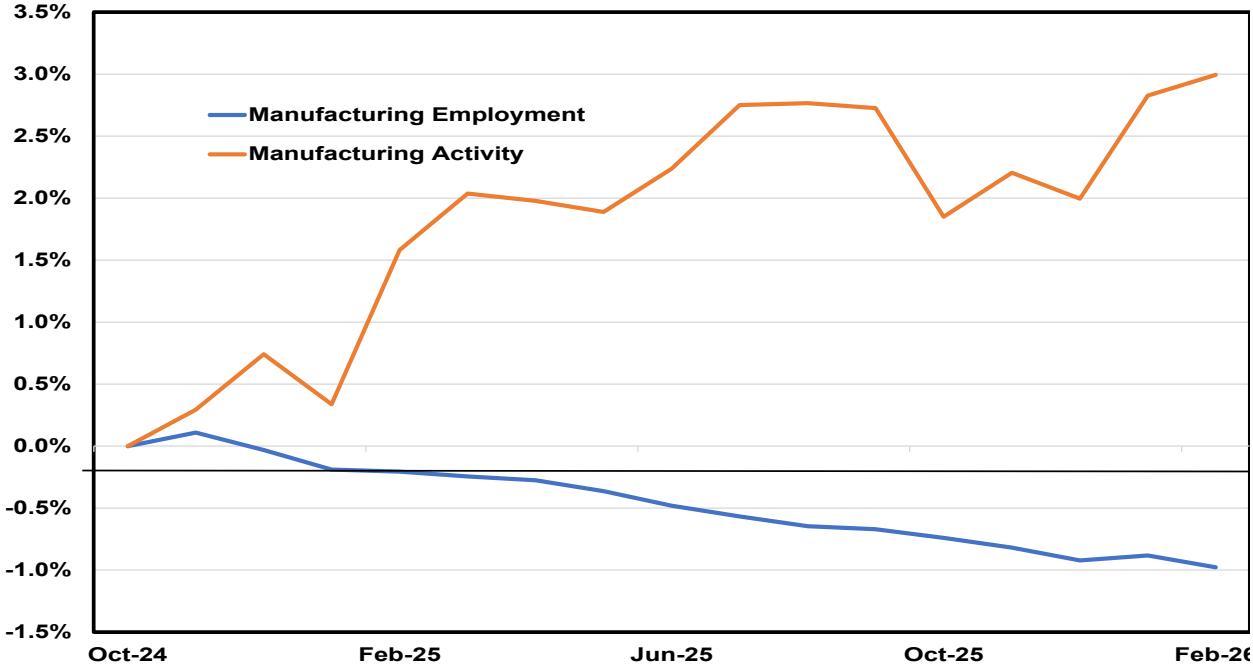
Manufacturing construction, though still elevated, has also dampened. It peaked at $235.6 billion in 2024 and has since declined roughly 7%-16% from that high — not because reindustrialization is failing, but because the CHIPS Act and IRA megaprojects that drove the boom are winding down from construction into operations, while tariff-induced policy uncertainty is freezing new starts.

It is possible that a revival in manufacturing will take time, as the administration argues. In fact, it is likely that before we see a pickup in manufacturing employment, activity will strengthen first. Indeed, industrial production rebounded robustly last year even as manufacturing employment continued to shrink (Figure B9). The outlook appears to have improved further this year: the ISM index — a key sentiment gauge for the manufacturing outlook — moved into expansion territory for the first time in three years during the first quarter. Manufacturing employment has also edged higher, expanding by 11,000 jobs in the first three months of the year. Perhaps even more encouragingly, Construction — often the first sector to pick up when large infrastructure and manufacturing projects are in the pipeline — has strengthened meaningfully, adding 57,000 jobs in the first quarter.

When you play the game of thrones, you win or you die. There is no middle ground." Cersei Lannister's dramatic flourish may be a touch over the top for today's geopolitical landscape, but it captures the high-stakes nature of the contest the United States is now engaged in as it seeks to rebalance what it sees as a lopsided trade position, rebuild its manufacturing base, and reassert control over critical supply chains. We hope in this quest to reshuffle the world order it does so with

a steely resolve but also a soft diplomatic touch — dispelling what Thucydides warned, and Mark Carney recently invoked, that "the strong do what they can, and the weak must suffer what they must." After all, in the words of Sansa Stark: "When the snow falls and the white winds blow, the lone wolf dies, but the pack survives."

Figure B9
Manufacturing Activity Has Held Up Well Even as Employment Languishes
(percent change since November 2024)



C. DIRE STRAITS: FIRE, BLOOD, AND THE TIDES OF WAR

"Night gathers, and now my watch begins. I am the sword in the darkness. I am the watcher on the walls. I am the shield that guards the realms of men."
—Game of Thrones

"When you play the game of thrones, you win or you die. There is no middle ground." It is easy to dismiss the ominous words of Cersei Lannister as dramatic flourish, but in today's geopolitics — and especially in the escalating war between the United States, Israel, and Iran — they are beginning to ring uncomfortably, almost eerily, true. What began as a military campaign against Iran, with all its conventional trappings, has morphed into an asymmetric, drawn-out confrontation with far broader consequences — one that has crippled the world's most important energy chokepoint, disrupted global shipping lanes, rattled oil markets, and cast a shadow over the once-thriving economies of the Gulf states.

The conflict is best understood as two parallel wars unfolding at once: one of U.S. and Israeli airstrikes against the theocratic Iranian regime, and a second — quieter but potentially more consequential — of Iran's war against the global economy. There appear to be no obvious off-ramps,

no graceful retreats. Iran cannot repel the warplanes prowling its skies, while the United States has no easy way to reopen the Strait of Hormuz or halt Iranian attacks on energy infrastructure. The uneasy equilibrium that endured for nearly half a century has fractured; the wall has crumbled and fallen. The White Walkers are marching in.

This has largely been the mood everywhere as of the writing of this report (mid April). To be sure, U.S. and Israeli forces can point to a string of significant military successes. Iran's navy has been largely destroyed — including 17 warships and a submarine — and its airspace is now dominated by U.S. and Israeli aircraft. Supreme Leader Ali Khamenei was killed within the first hours of the operation, along with roughly 40 senior officials, while many other regime leaders have also been eliminated. By mid-March, an estimated 3,000 to 4,000 Iranian soldiers and commanders had been killed. More than 17,000 targets have been struck across 29 of Iran's 31 provinces, including air defenses, missile launch sites, naval infrastructure, nuclear facilities, munitions factories, and energy installations. Cyberattacks have reduced Iranian internet connectivity to nearly zero. Four key ballistic missile manufacturing facilities and at least 29 launch sites have been severely damaged.

Iran's response has in some respects followed a familiar, and expected, pattern — retaliatory strikes against Israel and U.S. military bases across the region. What was far less anticipated, however, was the breadth and ferocity of its attacks on the Gulf states themselves, where targets extended well beyond military installations to include civilian sites and, most consequentially, critical energy infrastructure. Dubai and Kuwait's international airports were struck, as were major ports in the UAE and Oman, prompting Maersk to temporarily halt operations. A swanky hotel on Dubai's iconic Palm Jumeirah (one of your author's favorite) and an AWS data center in Abu Dhabi were also hit, while a government building in Kuwait and a desalination plant in Bahrain sustained severe damage.

But what has sent the deepest chill through the global economy is the systematic targeting of energy infrastructure across the Gulf — a main hub of global energy production. Iran struck Saudi Arabia's Ras Tanura refinery and oil facilities in Kuwait. Abu Dhabi's Habshan gas complex was shut down after being hit by debris, and aluminum facilities belonging to Emirates Global Aluminum were badly damaged. Perhaps most consequential was the assault on Ras Laffan — the engine of Qatar's economy, accounting for nearly 20% of global LNG exports and home to the world's largest LNG production complex. The attack, in response to Israel's targeting of Iranian gas fields, wiped out roughly one-sixth of Qatar's LNG export capacity — an estimated $20 billion in lost annual revenue. Repairs are expected to take three to five years, sidelining approximately 12.8 million tons of LNG production annually. The damage was so severe — and the implications for global energy markets so profound — that Mr. Trump publicly rebuked Israel and urged a halt to further strikes on Iranian energy infrastructure.

It gets worse. "The night is dark and full of terrors," the Red Priestess reminds us. Perhaps most harrowing for the global economy is the choking of traffic through the Strait of Hormuz — the world's second-largest energy chokepoint. Roughly 20 million barrels per day (bpd) pass through

the strait, accounting for about 20% of global petroleum liquids consumption and more than one-quarter of total seaborne oil trade (Figure C1). Only the Strait of Malacca carries more, at approximately 23.7 million bpd. But unlike Hormuz, Malacca is primarily a transit corridor rather than a source point for global energy supply, and it offers several alternative routes — making disruptions in the Gulf far more destabilizing for the world economy. The average flow of oil tankers through the strait has plunged from roughly 65 per day before the conflict to a mere trickle — around five per day in March (Figure C2). Overall vessel traffic through the strait — including LNG tankers, chemical tankers, container ships, and bulk carriers — has similarly collapsed, falling from a daily average of 136 (counting two-way traffic) to just six per day in March. Nearly 1,900 vessels are now stranded on either side of Hormuz, unable to transit. The Sound of Silence in the Strait must be deafening at the moment.

Figure C1
A Critical Chokepoint
(transit of oil and petroleum products, millions of barrels per day)

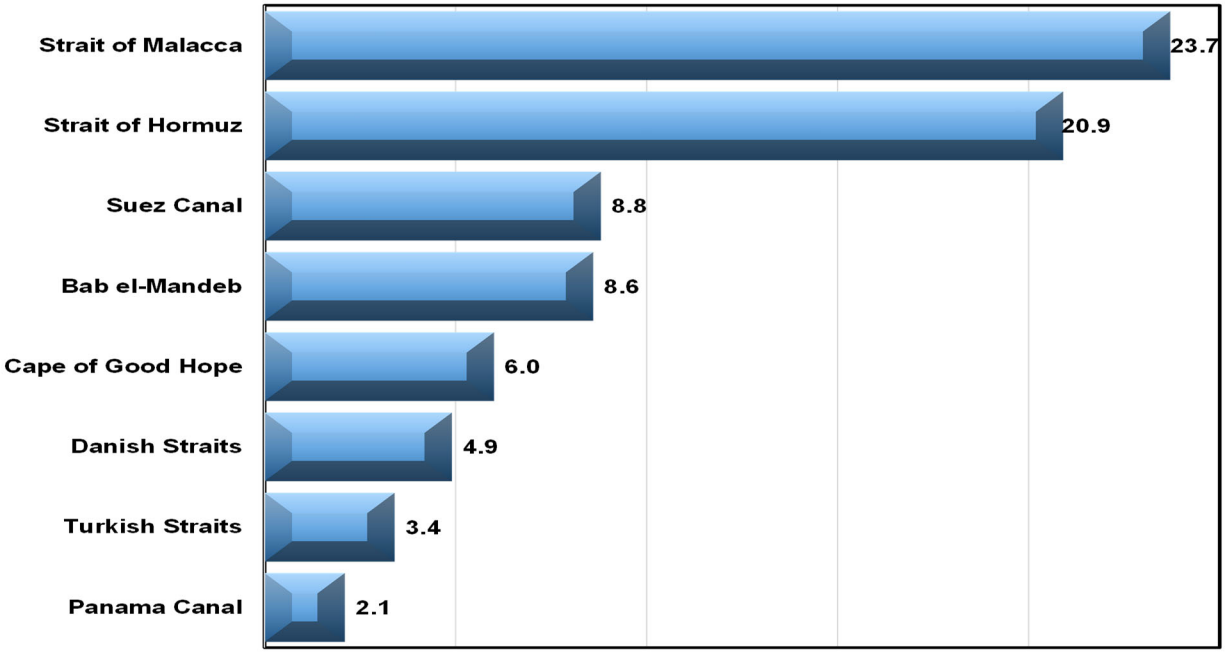
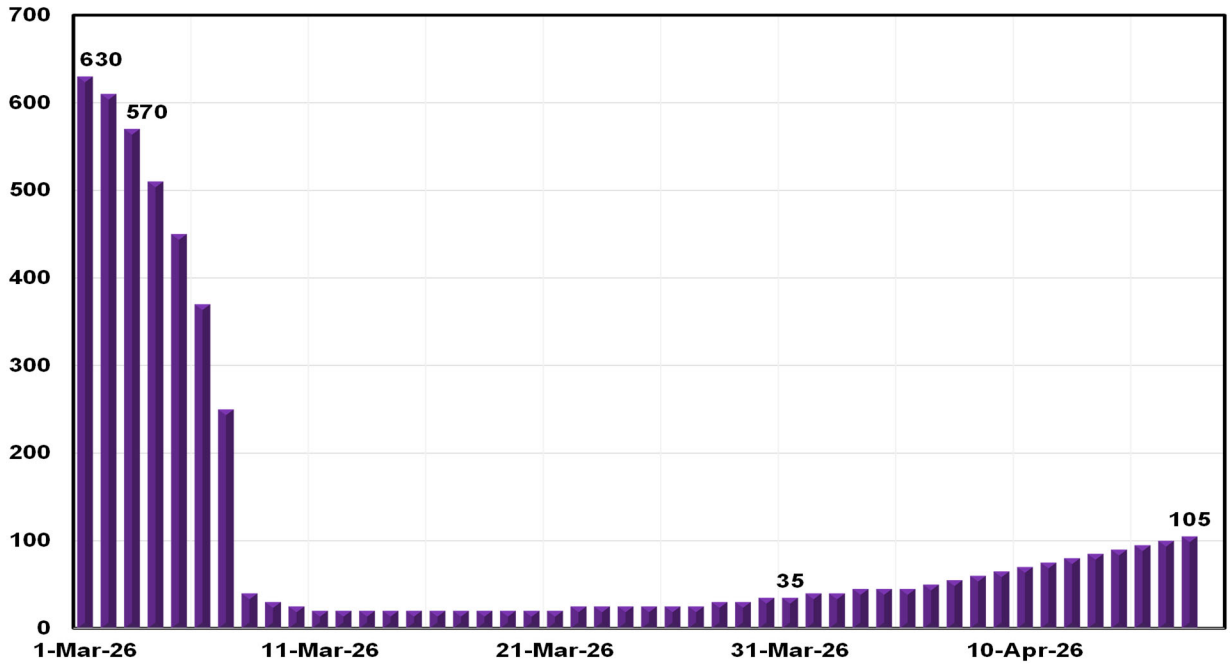


Figure C2
The Sound of Silence: Traffic Through the Strait is at a Standstill
(vessels per week)

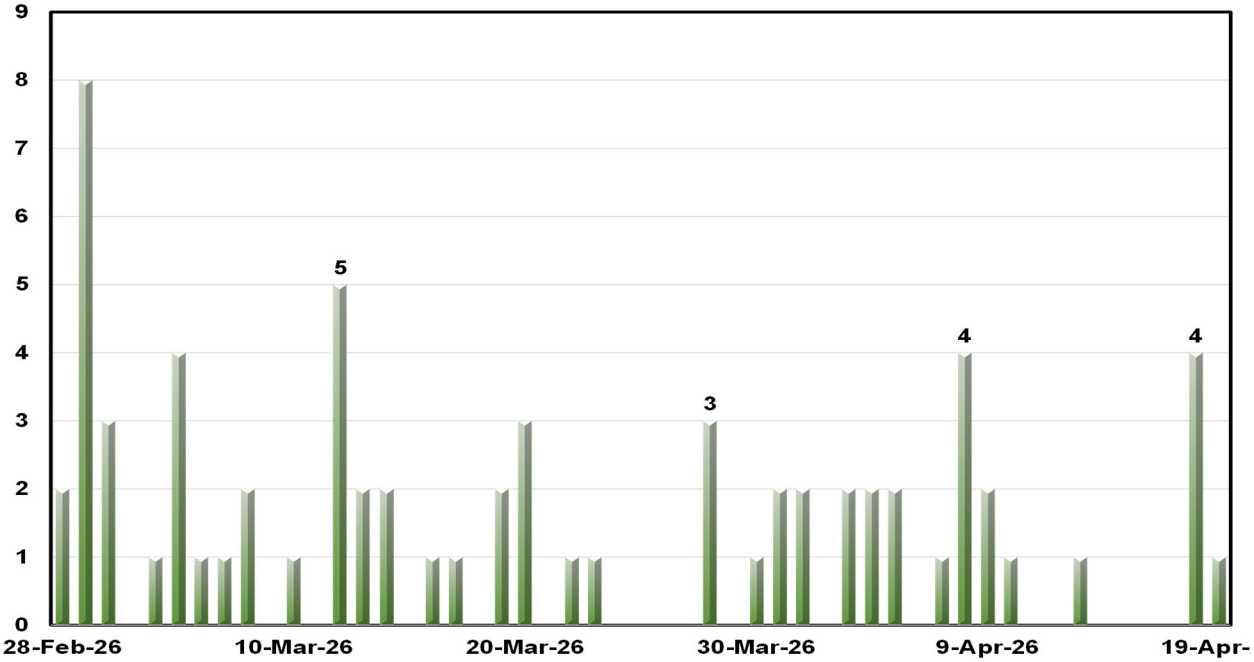


The stillness along the Strait is understandable. There has been talk of Iran mining the Strait, though we remain skeptical as such a move would also prevent Iranian ships from passing through. Indeed, the U.S. navy now patrolling the Strait has found no evidence of mines. Iranian navy never that formidable to start with, is now mostly at the bottom of the sea. The more immediate threat comes from errant drones and short-range missiles — or even the mere possibility of them. Since the conflict began, Iran has struck 69 vessels — an average of roughly 1.4 per day — with nearly a third of those incidents occurring in the first few days of the escalation (Figure C3). But it was not fire and fury from above that ultimately closed the strait. Even before drones began raining down, insurance rates surged fivefold, and Lloyd's Joint War Committee re-designated the entire Arabian Gulf as a conflict zone — with replacement coverage offered at roughly sixty times pre-crisis rates. For a single voyage by a U.S.-linked supertanker, war-risk insurance alone climbed to between $10 million and $14 million per transit.

In response, the U.S. government, through the International Development Finance Corporation, announced that Chubb would serve as lead underwriter for a $20 billion reinsurance facility, later expanded to $40 to also include liability coverage. But the scale of the challenge dwarfs these efforts. The cost of insuring the entire fleet of tankers trapped in the Gulf is likely orders of magnitude larger — around $350 billion by some estimates. Ultimately, however, the real constraint is not financial. No amount of insurance can compel ship captains to risk the crossing when there's

the slightest possibility of fatal outcomes— no matter how often Mr. Trump urges them to "have some guts."

Figure C3
Vessel Attacks by Iran
(number)



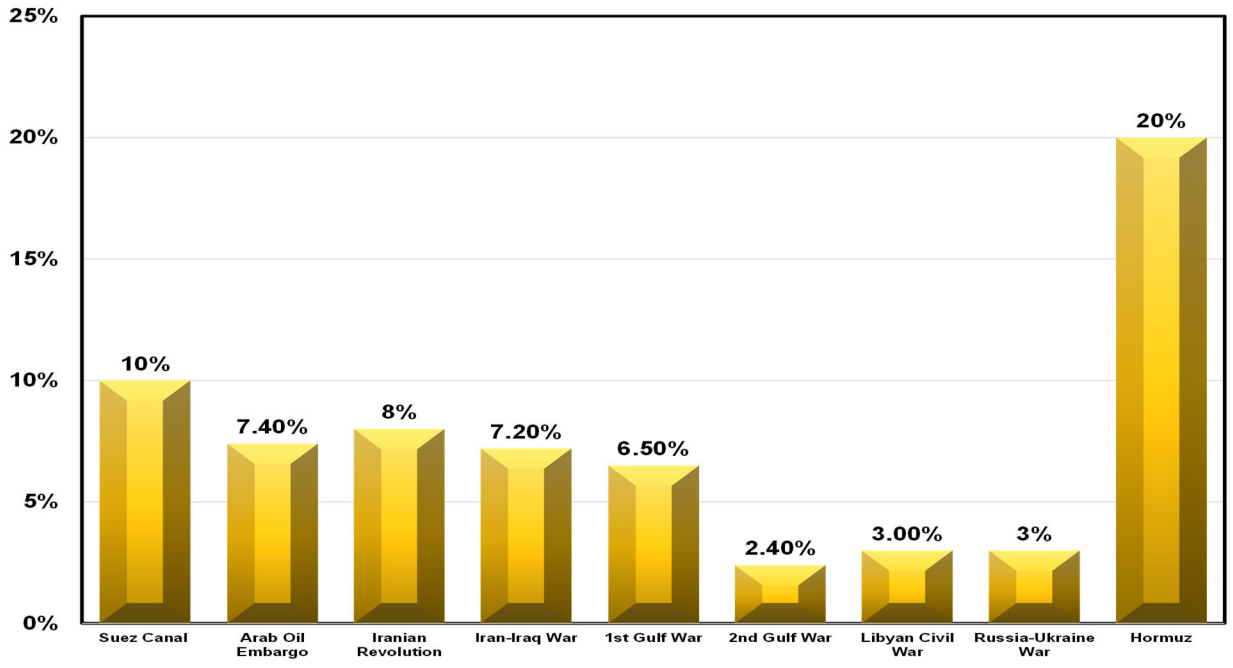
The Strait is not precisely closed. Early on, before the U.S. blockade, Iranian ships were going through — likely the only ones doing so consistently — carrying around 2.5 to 2.8 million barrels per day, mainly to China. What the Iranian regime was able to implement, for a whole, was a de facto blockade: declaring the strait closed to the U.S. and its allies while selectively granting passage to ships from friendly countries. India, Pakistan, Malaysia, and China all struck separate agreements with Iran for their vessels to transit. Even so, traffic remained a trickle— a handful of Chinese vessels, two Indian LPG tankers, and roughly 20 Pakistani ships moving at a pace of about two per day were able to complete the passage until early April.

Iran had also intended to formalize a tollbooth of sorts, planning to charge roughly $2 million per crossing, settled in yuan (a later report seems to indicate the payment would be made in bitcoin). It remains unclear whether any of these countries that successfully transited to Strait during March actually paid the fee. Iran's parliament is also moved to legalize the arrangement, positioning transit rights for friendly nations as a potential revenue stream to help finance the war effort. Notably, the escorts guiding approved vessels through Iranian territorial waters were not provided by the Iranian Navy — largely degraded in U.S. and Israeli strikes — but by the IRGC's separate naval force, which controlled the Strait for a few weeks, before the U.S. blockade, through fast attack craft, shore-based missiles, and drones. In other words, for a while, the Strait was neither open nor closed — it was licensed. "The Iron Bank will have its due," Game of Thrones reminds us. Indeed. And the Iron Bank is rather unforgiving.

Things have changed as of this writing. Following the collapse of negotiations, the U.S. responded on April 13 with naval interdictions targeting Iranian ports, while formally maintaining freedom of navigation for other vessels, a blockade of the blockade, so to speak. What followed was a brief burst of optimism: on April 17, Iran declared the Strait fully open, sending oil prices plunging 11%—only to reverse course within hours after the U.S. made clear its naval blockade would remain in place until a peace deal was reached. As of this writing, the Strait remains effectively closed, with shipping companies still unwilling to take the risk.

This matters. In terms of oil supply disruption, the effective blockade of the Strait of Hormuz represents the largest shock to global energy supplies since World War II — far larger than either of the oil crises of the 1970s. To put it in perspective: the Suez Canal crisis disrupted roughly 10% of global supply; the Arab Oil Embargo of 1973 cut about 7.4% ; the Iranian Revolution of 1979 removed around 8%; and the first Gulf War disrupted approximately 6.5%% (Figure C4). Today, 20 million barrels per day — fully 20% of global oil supply — is effectively stranded. Relief is hard to come by. Prior to the conflict, world spare production capacity stood at roughly 3.5 million barrels per day — but the vast majority of it sits in Gulf states blocked from transit. Meanwhile, production cuts across the Gulf have reached 8.8 million barrels per day.

Figure C4
A Historical Shock: World Oil Disruption
(percent of world oil supply)



The world is scrambling to make up the shortfall. In mid-March, the 32 members of the International Energy Agency agreed to release 400 million barrels of crude from their emergency reserves — roughly a third of the 1.2 billion barrels held in total — adding approximately 2.2 million barrels per day to global supply over 180 days. Saudi Arabia has diverted shipments through its East-

West Pipeline — the Abqaiq-Yanbu Petroline — pushing flows of up to 7 million barrels per day to the Red Sea port of Yanbu (Table C1). The UAE has redirected exports through its Abu Dhabi Crude Oil Pipeline to the port of Fujairah on the Gulf of Oman, adding as much as 1.8 million barrels per day, though the terminal itself has come under Iranian attack. Iraq is rerouting some northern production through the Kirkuk-Ceyhan pipeline to Turkey's Mediterranean coast, but at roughly 250,000 barrels per day — well below its 1.6-million-barrel design capacity — the contribution remains modest. Iran, exported approximately 2.5 million barrels per day through the Strait, largely to China, but only until the U.S. blockade.

To further ease the supply crunch, the United States de-sanctioned approximately 130 million barrels of Russian oil already at sea, along with an additional 140 million barrels of Iranian crude — together providing roughly two to three weeks of emergency buffer. Tallying it all up, the world is still left with a shortfall of roughly 7 million barrels per day —challenging, but not catastrophic, especially if the strait resumes normal operations by mid-summer, as is our baseline. And as always, necessity, breeds ingenuity. Much like Jon Snow's journey to Dragonstone in search of obsidian — the dragon glass needed to slay the White Walkers — when the Long Night looms, the world adapts and resilience takes hold.

Table C1
Some Mitigation Measures Will Help with Global Oil Shortfall

Source / Action	mb/d	Status
IEA emergency reserve release (32 nations, 400M barrels)	**2.2**	180 days from mid-March
Saudi Abqaiq–Yanbu Petroline (to Red Sea)	**7.0**	Ongoing
UAE Abu Dhabi Crude Oil Pipeline (to Fujairah)	**1.8**	Intermittent — under attack
Iraq Kirkuk–Ceyhan Pipeline (to Turkey)	**0.25**	Below design capacity
US de-sanctioned Russian & Iranian oil at sea (one-time)	**2**	Ongoing
NET DAILY SHORTFALL	**~7.5**	

It isn't just oil. Liquefied natural gas (LNG) shipments from the region — primarily Qatar — are also hefty. Qatar is the world's second-largest exporter of LNG (after the United States, which overtook it in 2023), accounting for roughly 20% of global supply. Around one-sixth of its export capacity has been damaged by Iranian drone strikes. And unlike oil — or even natural gas at the wellhead — LNG production cannot simply be switched back on. Gas must be cooled to roughly 160 degrees below zero to be liquefied, and both tankers and liquefaction facilities are designed for constant, high utilization. Once shut down, they must be gradually cooled back to operating temperatures, meaning it takes time to resume shipments even after hostilities subside. Reaching full capacity from undamaged infrastructure will likely take four to six weeks. If there is any consolation, it is that Gulf LNG exports account for only about 3% of global energy consumption.

The problem is that, unlike oil, there are no meaningful strategic reserves for natural gas. The European Union mandates minimum storage levels, but after the winter, inventories are running especially low. Even so, Europe is somewhat insulated, as LNG imports from Qatar account for only about 13% of its supply. Asia is far more exposed. Singapore and India import roughly 43% of their gas from Qatar, Hong Kong about 42%, Taiwan 29%, and China 28%. Among Asian economies, South Korea has the largest available storage — roughly 52 days' worth of gas. Japan has about 20 days; Taiwan only 11. India's reserves would last a hair-raising five to six days.

Spare capacity elsewhere is limited. U.S. LNG facilities are running at roughly 95% utilization, while Australia — the world's third-largest LNG exporter — is operating at around 90%. That leaves Russia as the only major producer with the ability to ramp up supply quickly. However, most of its spare capacity lies in pipeline gas to Europe — which Europe had planned to phase out entirely this year. This would require Europe to roll back its sanctions on Russian energy and push back the deadline of weaning itself off gas.

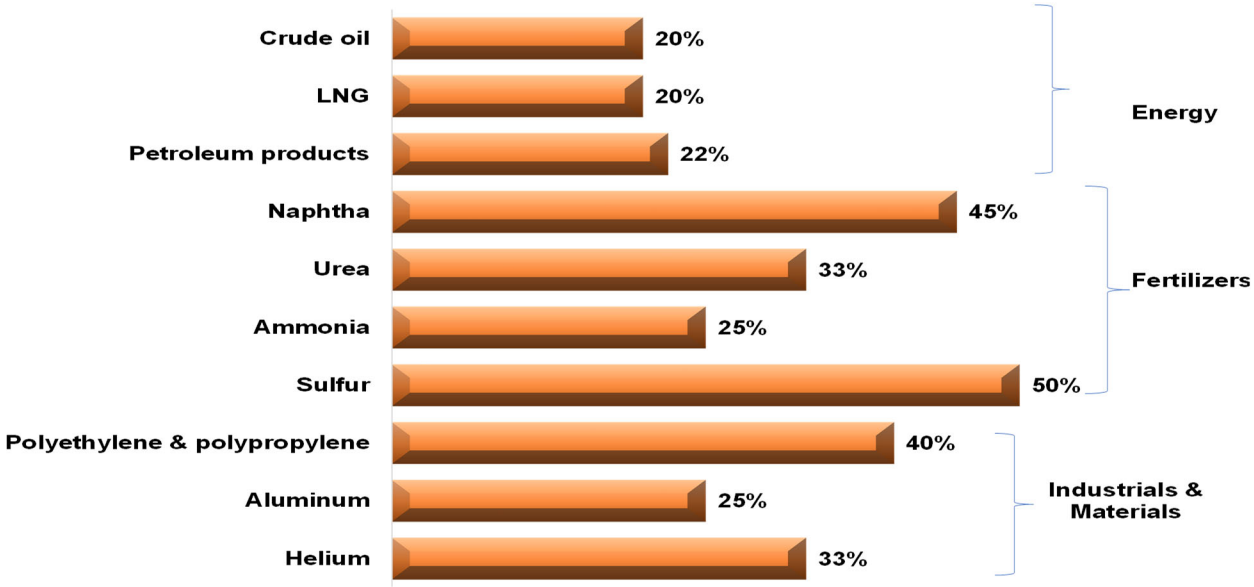
Refined petroleum products have also taken a hit. Before the war, roughly 2 million barrels per day of jet fuel and diesel — about 22% of global petroleum product exports — transited the Strait of Hormuz daily. Europe sourced approximately 69% of its jet fuel from the Gulf and Asia combined, leaving it acutely exposed to the crisis. Bunker fuel — the heavy oil that powers the world's shipping fleet — is also facing severe strain: Kuwait supplied roughly 40% of Singapore's low-sulfur bunker fuel demand before the conflict (Singapore is one of the world's largest energy hubs). But the deeper problem runs upstream. Around 85% of crude transiting Hormuz was destined for Asian refineries specifically configured to process Gulf heavy crude into bunker fuel, jet fuel, and other derivatives. As these flows have slowed to a trickle, prices for jet fuel and bunker fuel nearly doubled — and while there has been some moderation in recent days, both remain sharply elevated.

Petrochemicals are another casualty. The Gulf region accounts for nearly 45% of global seaborne naphtha flows, 40% of key plastic inputs, roughly 30% of methanol (used in plastics, resins, and chemicals), and about 25% of global aluminum production (Figure C5). Some Asian plastics manufacturers have already declared force majeure, unable to fulfill contracts as feedstocks dry up. Aluminum prices have surged in Europe and the United States, where Gulf imports account for roughly 14% and 21% of supply, respectively. Perhaps even more concerning is the disruption to helium — an essential gas used to cool superconducting magnets critical for semiconductor manufacturing and MRI machines. Qatar alone supplies roughly one-third of global helium, and unlike oil or gas, there are no ready substitutes for helium.

Even more ominous is the threat to the global food supply. The Gulf accounts for roughly a third of globally traded urea, a quarter of ammonia, and — most strikingly — half of all globally traded sulfur, which is essential for producing phosphate fertilizers. Combined, approximately 20-30% of all global fertilizer exports transit the Strait of Hormuz. The timing could hardly be worse: the conflict erupted precisely as Northern Hemisphere farmers were beginning their spring planting season. Urea prices have already surged 50% since the war began. QatarEnergy has halted all urea

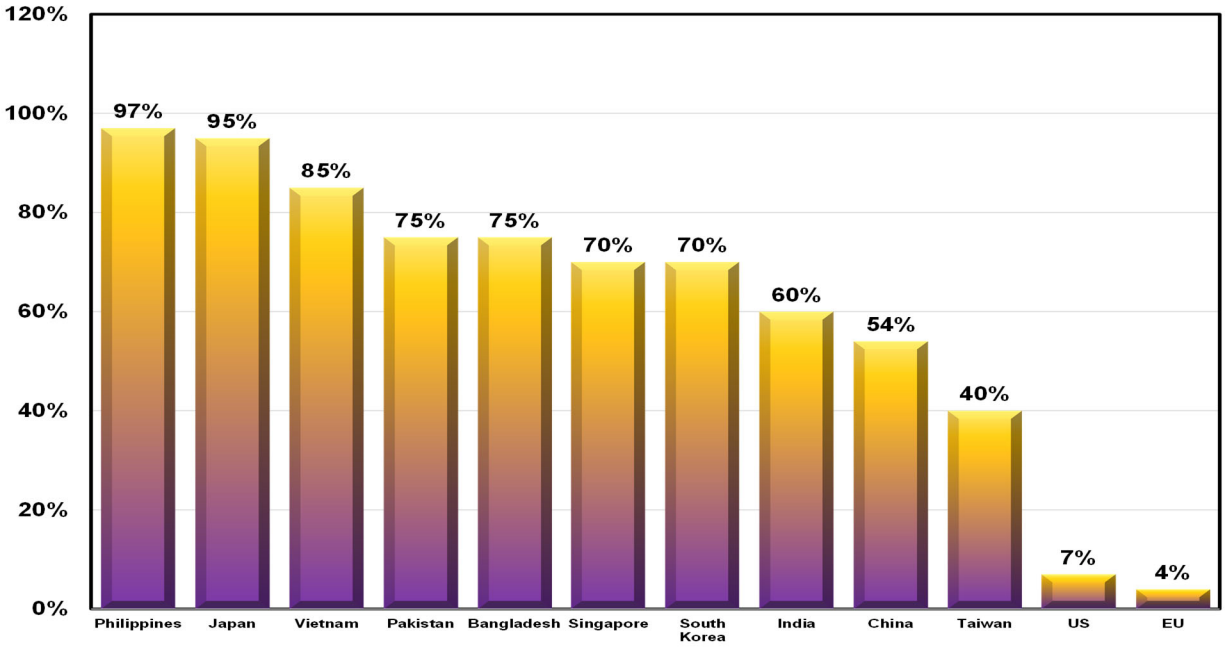
and ammonia production following the attacks on Ras Laffan. "We Do Not Sow" — the words of House Greyjoy, symbolizing their culture of reaving and raiding rather than farming — may well end up being the defining words of this planting season.

Figure C5
Hormuz Strait: An Important Chokepoint Not Just for Energy
(percent of world supply)



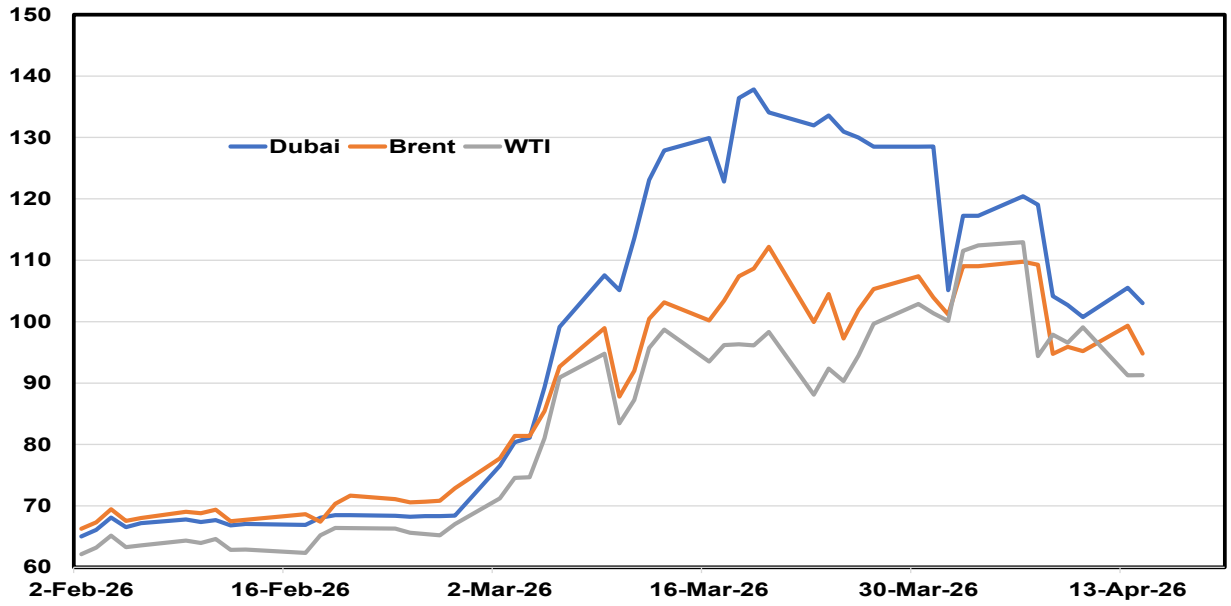
And the pain is far from evenly distributed, with Asia bearing the brunt of the disruption — overwhelmingly, and in some cases, existentially. Japan sources roughly 95% of its crude oil imports and 11% of its LNG from the Middle East; South Korea, about 70% of its crude and 35% of its LNG; India, roughly 60% of crude and 40–53% of LNG (Figure C6). Taiwan draws about a third of its LNG from Qatar alone, while Singapore sources roughly 70% of its crude and a staggering 90% of its LNG from Qatar and the UAE. Pakistan and Bangladesh import about 75% of their crude and 60–72% of their LNG from the Gulf. Vietnam sources roughly 85% of its crude imports from the Middle East, while the Philippines imports 95–98% of its petroleum needs from the region. China — the world's largest crude importer — sources roughly 54% of its seaborne crude and 27% of its LNG from the Middle East. Europe fares considerably better — only about 4% of its crude and 7% of its LNG transit Hormuz — though, having replaced Russian diesel with Middle Eastern supplies after 2022, it now finds that lifeline increasingly vulnerable. The United States, however, remains the most insulated. A net energy exporter since 2020, it sources a mere 7% of its crude imports from the Gulf and none of its LNG, leaving it far less exposed than much of the rest of the world.

Figure C6
The Pain is Not Evenly Distributed: Asia Much More Dependent on the Strait
(oil imports, percent of total)



Throughout the seven weeks of hostilities, oil prices have reflected, almost mechanically, the geography of pain. WTI — the landlocked American benchmark priced at Cushing, Oklahoma — traded at an average discount of roughly $10 per barrel to Brent, the global seaborne benchmark. But both have been dwarfed by dramatic surges in Dubai (or Omani) crude — the physical benchmark used to price the roughly 20 million barrels per day destined for Asian refineries from the Gulf — which, at its peak on March 19, touched $166 per barrel (Figure C7). The yawning gap captures the gulf between sentiment and physical scarcity: Brent reflects what traders think the next post on Truth Social might bring; Dubai reflects what Asian refineries must pay to secure a barrel of oil today. Of course, such a divergence cannot persist indefinitely. Indeed, as of mid-April, both Brent and WTI have repriced higher as inventories were drawn down, and prices converged lower as a ceasefire continues to hold.

Figure C7
Oil Prices Reflect Geographical Pain
(dollars per barrel)

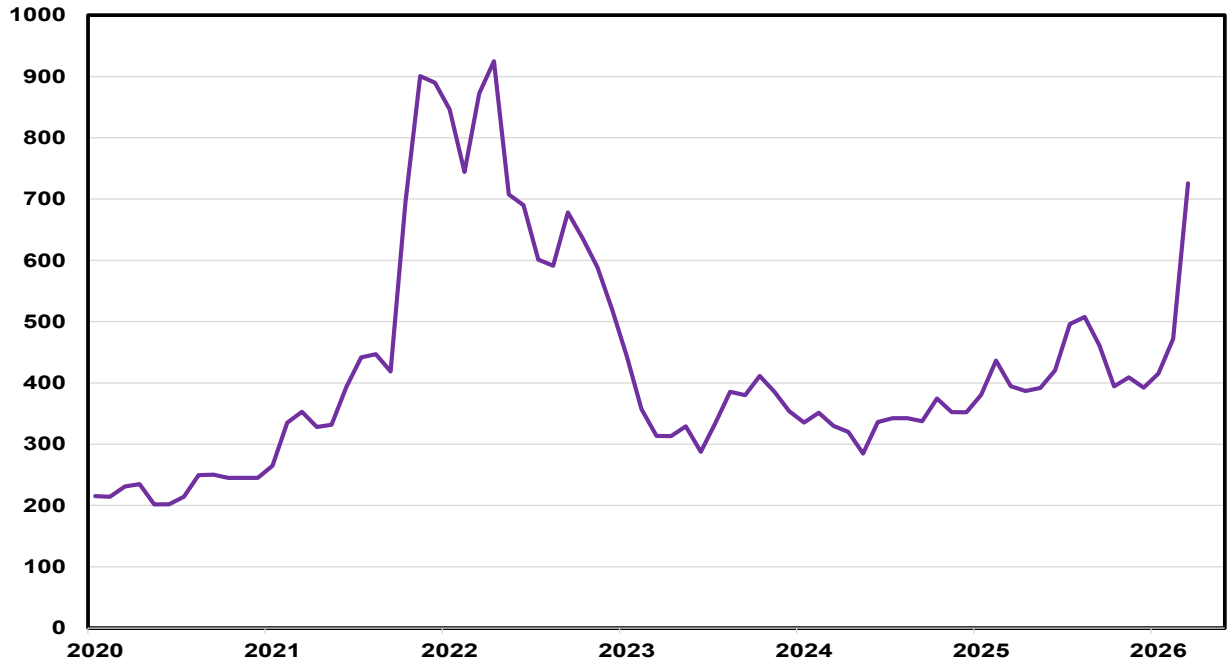


Fertilizer prices have also surged. Urea is up roughly 50%, climbing from $482 per ton to around $700 since the start of the conflict, while ammonia prices have jumped by about 24% (Figure C8). Sulfuric acid — a critical input used to convert phosphate rock into DAP and other phosphate fertilizers — has risen roughly 30%, further tightening an already strained phosphate market. Potash prices, by contrast, have remained largely unchanged, rising only about 2%, reflecting their sourcing from regions outside the Gulf — primarily Russia, Canada, and Belarus. Mercifully, fertilizer prices remain well below the peaks reached during the Russia–Ukraine war of 2022, when urea touched $1,050 per ton, DAP hit $1,132, and anhydrous ammonia surged above $1,600. The key difference lies in the nature of the shock. Then, supply itself was disrupted, pushing prices sharply higher. Now, the supply largely exists — it simply cannot move. This is a chokepoint disruption rather than a production shortfall. This distinction matters: should the Strait reopen, prices are likely to normalize relatively quickly.

Asia is also, by far, the most exposed to fertilizer disruptions from the Strait blockade. India, the world's largest urea importer, sources roughly 80% of its urea, 61% of its ammonia, and 60% of its phosphate fertilizer imports from the Gulf. With all 32 of its ammonia-urea plants gas-based and LNG feedstock disrupted, the country has already lost an estimated 800,000 tons of monthly urea production — just as the monsoon planting season approaches. Pakistan and Bangladesh, both heavily dependent on Qatari LNG for fertilizer feedstock, have seen plants shut down entirely. Australia, which sources more than 60% of its urea from the Middle East, expects current stocks to run out by mid-April, with few viable alternatives at manageable logistics costs. Brazil, the world's

largest fertilizer importer, sources roughly half its urea from the region and faces a 30% gap in phosphate supply, threatening soybean and corn harvests. Even the United States is not entirely immune: it sources about 13% of its overall fertilizer supply from the Middle East, including roughly 35% and 40% of its urea and phosphate imports, respectively, from the Gulf — just as spring planting reaches peak demand.

Figure C8
On the March: Fertilizer Prices Have Surged
(urea prices, dollars per metric ton)



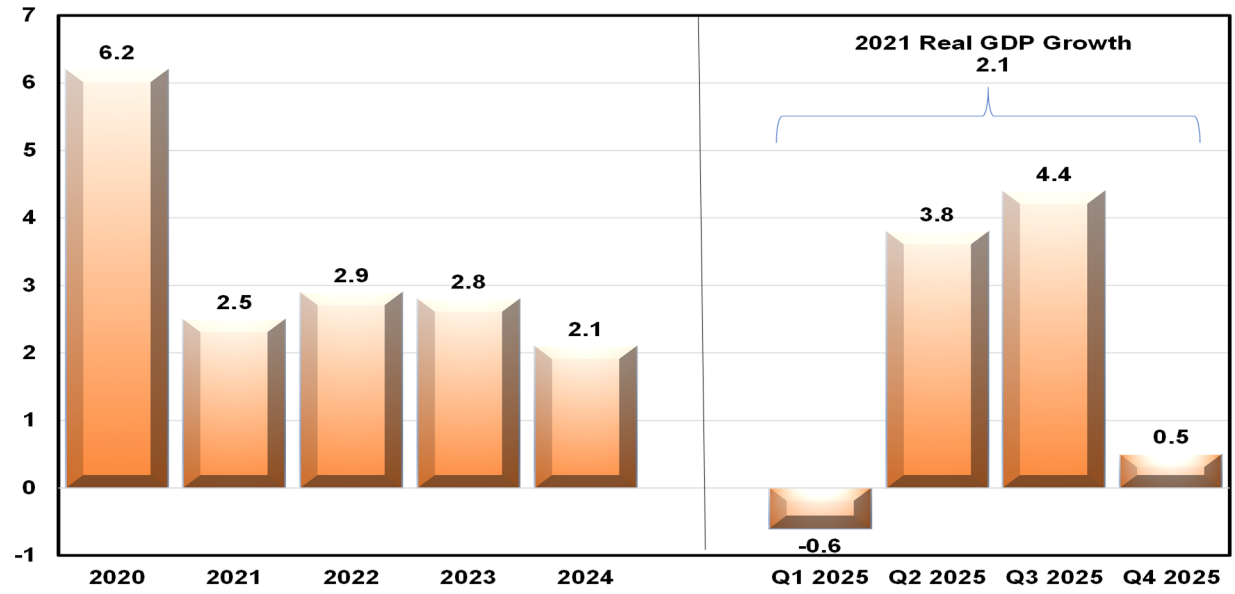
Some countries have taken even more radical steps to cope with energy supply disruptions. In the Philippines, government offices have moved to a four-day workweek. In Thailand and Vietnam, officials have been encouraged to work from home and limit travel; Myanmar has imposed alternating driving days; and Bangladesh and Pakistan have closed universities and moved instruction online. South Korea has gone further still, urging citizens to "save every drop of fuel," imposing a license plate–based rotation system to restrict public-sector vehicle traffic and encouraging households to take shorter showers. As Game of Thrones reminds us, "The common people pray for rain, health, and a summer that never ends. They don't care what games the high lords play." In 2026, that list may also include praying for normal shower times.

The concern is that the current supply shock is layered on top of an already existing one: the tariff wall erected last year. In fact, supply shocks have come to define the past few years. Unlike the past decade — characterized largely by persistent demand shortfalls in the wake of the Global Financial Crisis — the current one, emerging in the aftermath of COVID, is shaping up to be an endless parade of supply shocks. First came the pandemic in 2020, followed by the gnarling of global supply chains in 2021. Then, in 2022, the Russia–Ukraine war. In 2023–2024 came the Houthi disruptions in the Red Sea and a historic drought that constricted traffic through the Panama Canal. Last year

ushered in tariffs — a cold war of sorts, primarily between the United States and China, but also between America and much of the rest of the world. And now, a hot war with Iran.

You would be forgiven for thinking that these formidable blows would spell doom for the U.S. and global economy. Yet, somewhat miraculously, that has not been the case. Real GDP grew at a robust average of 2.7% between 2022 and 2024, following a blockbuster 6.2% rebound in the immediate aftermath of COVID in 2021 (Figure C9). Despite all the handwringing, growth last year also came in at a respectable 2.1%. It would likely have been considerably higher were it not for two unusual quarters: a 0.6% contraction in the first quarter, driven largely by a surge in imports ahead of impending tariffs, and a weak fourth quarter — just 0.5% — reflecting the government shutdown, which shaved roughly one percentage point off growth, with effects likely amplified by second-order impacts on consumption and private investment. "People have been swinging at me for years; they always seem to miss," Jaime Lannister once proudly crowed. Many forces have swung at the economy over the past few years; yet, at least for now, it has remained — in the words of House Martell — "Unbent, Unbowed, Unbroken."

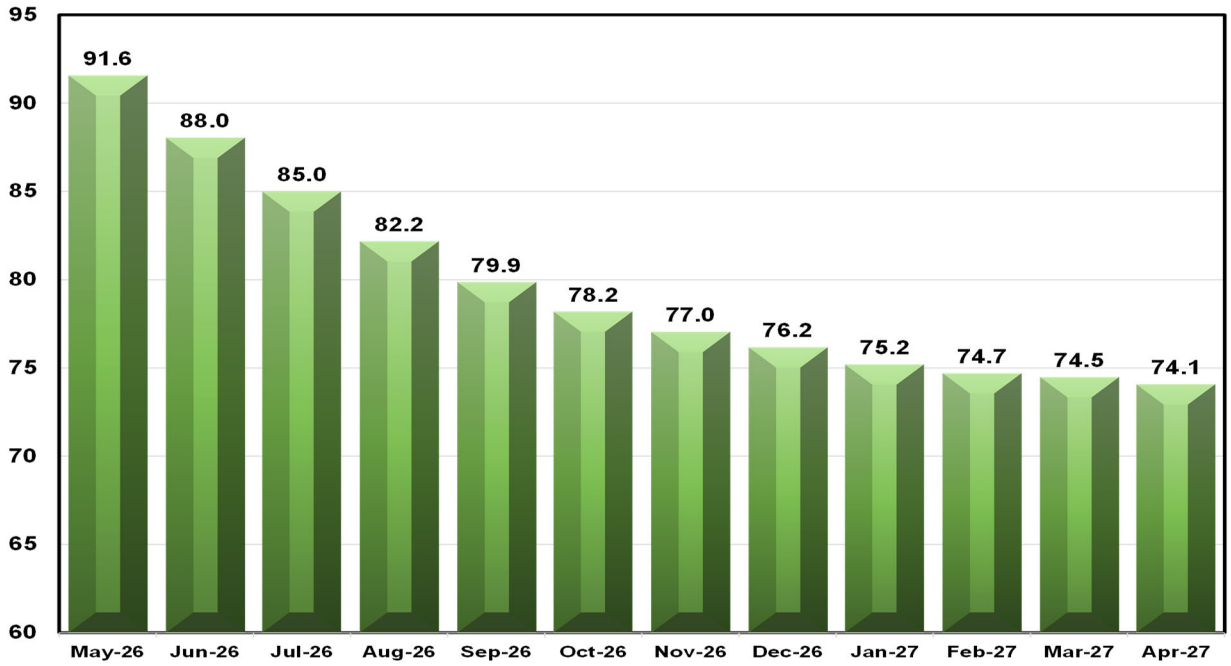
Figure C9
U.S. Growth Resilient...But Erratic
(real GDP growth, annualized rate)



The question is whether this resilience will hold. In real estate, the three most precious words are "location, location, location." In wars, it is "duration, duration, duration." Should the conflict end soon, the dent to growth and the impending surge in inflation will likely prove a blip — a temporary shock rather than a lasting scar, and, in time, little more than a footnote in history. For now, markets appear to be pricing precisely this outcome. Oil prices are currently trading in extreme backwardation — with near-term prices significantly higher than those for future delivery, signaling expectations that current shortages will ease over time (Figure C10). WTI for May delivery is

currently around $91 per barrel but falls to $85 for July delivery and $74 for December. Equity markets, perennially prone to dramatic fits and the occasional case of the vapors, have also taken a relatively sanguine view. The biggest drawdown due to the war for the S&P500 was 9%; for the Dow and NASDAQ it was 10% and 12.8%, respectively, from all-time highs in January. All these are modest and, most importantly, orderly downdrafts, especially compared with the sharp "Liberation Day" collapse a year ago. Most importantly, the S&P500 and the NASDAQ have reversed these losses as of this writing (mid-April), setting fresh new highs. Treasury markets have been somewhat less forgiving: the 10-year yield has risen by about 45 basis points since the conflict began, largely on inflation concerns. But even here, the mood appears to be one of extreme caution rather than outright panic.

Figure C10
Oil Futures Are Pricing a Relatively Quick Resolution to the Conflict
(dollars per barrel)



We agree. To start, the fog of war surrounding the Iran conflict appears to have lifted slightly in recent days — though only by a hair. After nearly six weeks of hostilities, a two-week ceasefire — a détente of sorts — was agreed between the United States and Iran as negotiations continue. Just today, as the deadline of the ceasefire was nearing, it was postponed, for what seems to be an infinity. The truce remains uneasy and fragile: America insists that the Strait of Hormuz remains open during the ceasefire; Iran, by contrast, maintains that any passage should be coordinated with its military forces. "In wartime, truth is so precious that she should always be attended by a bodyguard of lies," Churchill told Stalin during WWII— ironically, in Tehran. Indeed, the day following the ceasefire announcement saw some of the bloodiest fighting since the conflict began — with Israel continuing strikes against Lebanon (which it insists was not part of the

ceasefire agreement) and Iran maintaining its assaults on Gulf states. Part of the confusion may stem from Iran's "mosaic" approach, in which decentralized militia networks operate with significant autonomy from Tehran — meaning some field commands may not have been fully apprised of the temporary truce.

The ceasefire appears as brittle as they come, and high-level negotiations in Islamabad ended, predictably, without agreement. A second round, slated for this week, never got off the ground. The U.S. navy continues to patrol the Strait and has intercepted two Iranian vessels so far. This is surely an escalation, but ramping up and tempering down — escalate to de-escalate — has been a constant feature of this conflict since the start. Even before these developments, our baseline scenario envisioned a limited engagement — roughly two months — followed by extended negotiations and behind-the-scenes wrangling stretching into late May or early June, with the Strait of Hormuz gradually resuming a semblance of normality by mid-summer. President Obama's negotiations over the JCPOA lasted nearly two years, but Mr. Trump is a man in a hurry and lacks that sort of Olympian patience. Things, however, will almost surely get worse before a meaningful resolution emerges: we would not be surprised to see oil prices briefly surge north of $120 in the interim.

Another reason to expect a resolution of the conflict measured in months rather than years is that fears of escalation through the deployment of ground troops appear overblown. The United States has deployed roughly 5,000 Marines and about 2,000 troops from the 82nd Airborne Division, on top of its approximately 50,000 forces already in the broader Middle East theater. That is a far cry from the nearly 700,000 troops mobilized during the First Gulf War and the roughly 300,000 deployed in the second. Even if current troop levels were sufficient to secure smaller islands – such as Kharg, Qeshm, or Abu Musa — they would likely be insufficient to hold them. Moreover, Mr. Trump has long held a deep and abiding aversion to "forever wars," which this conflict would almost certainly become should the United States commit ground forces.

In the end, perhaps what matters most for the outlook — and especially for the global economy — is the reopening of the Strait. Whether this occurs through a negotiated agreement restoring free passage (as before the war), a toll system administered jointly by Iran and Oman (as proposed by Tehran but doubtful), a "joint venture" between the United States and Iran (as mused by Mr. Trump, even more doubtful), or a 'coalition of the willing' providing naval escorts, remains to be seen. What seems more certain is that the blockade will, at some point, come to an end. "If something cannot go on forever, it will stop" — the ever-wise words of economist Herbert Stein — have rarely rung more true.

Rarely has there been a time when risks to the baseline forecast have been so sky-high, and we say this with the benefit of a great many years of experience and an even greater dose of humility. As Game of Thrones wisely advises, "Never forget what you are. The rest of the world will not. Wear it like armor, and it can never be used to hurt you." In that spirit, we wear humility as our armor. Forecasting in times of war is as dangerous as it gets, not least because wars — and

especially asymmetric ones — rarely unfold in predictable ways. Our baseline scenario assumes a resolution of the conflict and some semblance of normality in the Strait of Hormuz by mid-summer, with many flare-ups — "escalate to de-escalate" — and heart-stopping volatility between now and then. But it is perhaps even easier to envision darker scenarios, where the war stretches into a quagmire-like stalemate — neither winding down nor escalating decisively — and where the Strait is neither fully reopened nor fully closed, operating instead in fits and starts. In this purgatory-like scenario, oil prices settle in the danger zone well north of $100 for the remainder of the year, consumption posts back-to-back quarterly declines, and U.S., and global growth, growth becomes mired in a world of higher inflation and stalled activity — stallflation, so to speak. A mild U.S. recession — and a more pronounced global downturn — would then cease to be tail risks and approach near certainty.

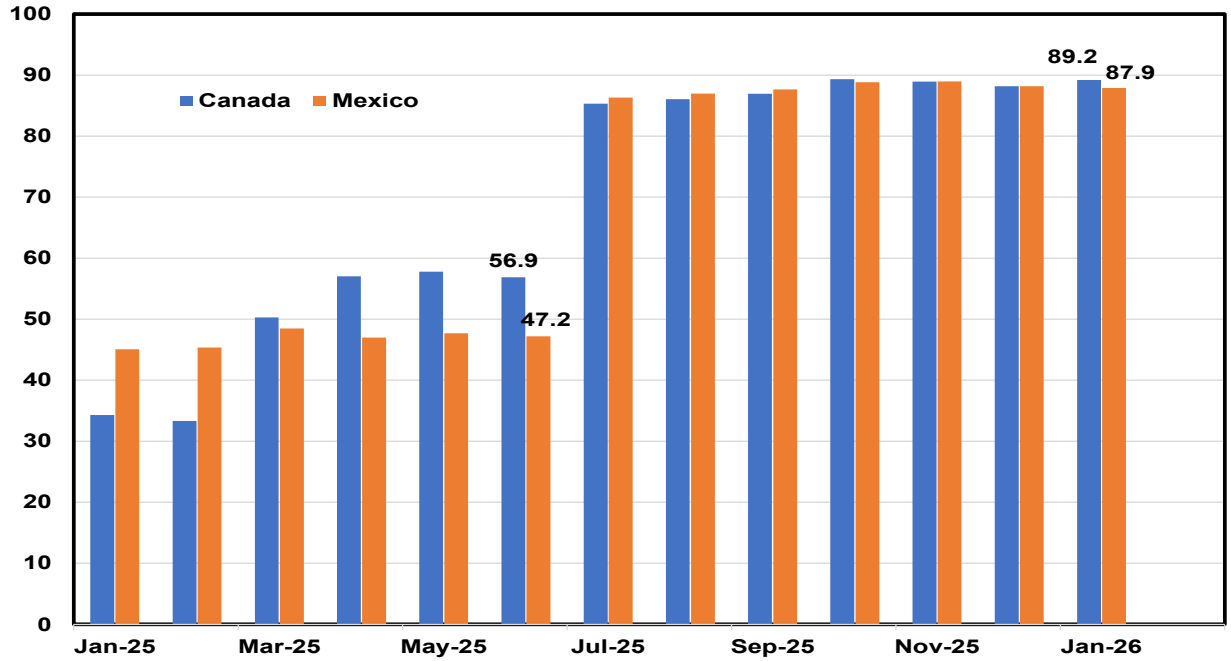
D. THE NORTH REMEMBERS: USMCA IN CROSSHAIRS

"When the snow falls and the white winds blow, the lone wolf dies, but the pack survives."
— *Game of Thrones*

USMCA, the trade agreement between the United States, Canada, and Mexico negotiated during the first Trump administration, is up for its periodic review this year. It is a momentous event — the first of its kind, as no prior North American trade agreement required a formal, time-bound reassessment of this nature. The review is taking place against a backdrop of heightened political tension: the second Trump administration has signaled that it views the process as a broad opportunity to extract additional concessions from both trading partners.

The administration has already imposed tariffs on Canada and Mexico outside the USMCA framework. Yet because roughly 85% of trade among the three countries remains governed by the agreement's zero-tariff structure, the overall impact is less alarming than the headline measures might suggest. Effective tariff rates on both Mexico and Canada remain below 5% — the lowest applied to any major trading partners. Firms in these countries also moved quickly to adapt. Many rushed to certify USMCA compliance — something they had often not bothered with in the past — once the 25% IEEPA tariffs were imposed. The share of Canadian and Mexican imports claiming USMCA exemptions surged from roughly 35–40% before the tariffs to nearly 85–89% by late 2025 (Figure D1). The Supreme Court's decision to scuttle the IEEPA authority under which the tariffs were initially imposed has not materially altered this picture. Tariffs on Canadian and Mexican goods have continued to hover below 5%, leaving the broader North American trade relationship largely intact.

Figure D1
USMCA Compliance Has Skyrocketed Since Tariffs Were Imposed
(USMCA goods compliance, percent of total imports)



Nonetheless the review is important for all parties. Canada has faced unprecedented U.S. pressure on issues ranging from dairy market (in response to Canada's steep tariffs on some US products), access to energy pricing to border security. Mexico is navigating a complex dynamic in which it is simultaneously the United States' largest trading partner, a critical node in nearshored supply chains that U.S. companies have built to reduce dependence on China, and a country under sustained U.S. pressure on issues like immigration and fentanyl trafficking.

The existing USMCA agreement is itself, by most measures, a crowning achievement of the first Trump administration. It preserved the basic zero-tariff architecture of NAFTA — its predecessor — while addressing many of the issues that had emerged since its inception: the rise of e-commerce, the growing importance of digital services, concerns about China's expanding influence, and stronger labor and environmental standards. One of the central points of contention prior to the USMCA was the hollowing out of the U.S. manufacturing base, as companies increasingly offshored production (and jobs) to Mexico, where wages and regulatory standards were significantly lower.

The USMCA sought to address these concerns. For the first time in a major trade agreement, it included binding and enforceable labor obligations. Mexico was required to overhaul its labor laws to allow genuine independent union organizing, and a new Rapid Response Labor Mechanism was created to address facility-specific violations of workers' rights in real time. The agreement also tightened rules of origin for automobiles, raising the regional content requirement for zero-tariff treatment from 62.5% under NAFTA to 75% under USMCA, and introduced a labor value

content provision mandating that a share of auto production occur in facilities paying workers at least $16 per hour — measures designed to reduce incentives for offshoring and strengthen North American manufacturing.

Beyond manufacturing, the USMCA incorporated a comprehensive digital trade chapter covering cross-border data flows, prohibitions on data localization requirements, and protections for platform companies — provisions reflecting the growing importance of the digital economy, which had barely existed when NAFTA was negotiated. Just as importantly, unlike NAFTA — which had no expiration date — the USMCA included a built-in review mechanism: a 16-year term with a mandatory joint review by all three parties at the six-year mark. That review, scheduled for 2026, makes this year's reassessment both consequential and unprecedented for North American trade relations.

Much is at stake. From the U.S. perspective, the review is not a routine health check but a potential platform for broader renegotiation, with issues extending well beyond technical adjustments. One of the thorniest concerns is third-country transshipment — particularly from China — whereby goods produced or assembled in Mexico (by Chinese firms) can enter the United States duty-free under USMCA rules, raising fears that the agreement may provide a backdoor for Chinese exports into the U.S. market, circumventing the high tariff rates imposed on that country. These concerns have intensified as Chinese foreign direct investment in Mexico has surged in recent years, with independent estimates placing it at roughly $15 billion — far above the approximately $2 billion officially reported by the Mexican government. Industries drawing particular scrutiny include steel, solar panels, auto parts, and, most prominently, electric vehicles, where Chinese firms are increasingly seeking to establish production footholds in Mexico to serve the North American market.

But it isn't just China. The broader concern is that Mexico is increasingly being transformed into the final node in a multi-country production chain, where components are sourced from wherever costs are lowest — Vietnam, Malaysia, Cambodia, Thailand, Indonesia, and increasingly India — shipped to intermediate locations, and ultimately routed through Mexico for final assembly just sufficient to qualify as "substantial transformation" under U.S. customs rules. Transshipment had already emerged as a major issue, most notably in a 2023 antidumping case involving solar panels assembled in Cambodia, Malaysia, Thailand, and Vietnam before entering the U.S. market. Mexico is simply the latest — and arguably most attractive — node in this evolving network, as USMCA's zero-tariff access to the U.S. market makes the potential payoff significantly larger.

Mexico has taken steps to address these concerns. In December 2025, it imposed new tariffs on imports from non–free trade agreement partners — effective January 1, 2026 — a move aimed in part at curbing Chinese inflows. It has also begun tightening scrutiny of foreign direct investment, particularly from China. Nonetheless, the United States is pushing for much stronger gatekeeping provisions. These include a formal anti-transshipment clause in a revised USMCA, with clearer legal definitions, an administrative review process, and automatic exclusion for goods

deemed to circumvent rules of origin. The U.S. is also advocating for a trilateral investment-screening mechanism — effectively a North American version of CFIUS (the Committee on Foreign Investment in the United States), which reviews foreign investments for national security risks — to vet Chinese FDI in Mexico before it enters North American supply chains.

Another point of contention involves rules of origin — the provisions that determine what share of a product must be produced in North America to qualify for USMCA's zero tariffs. While the current agreement already tightened these requirements, the United States is pushing to go further, particularly in the auto sector. Modern vehicles — especially electric vehicles — rely on supply chains that differ markedly from traditional internal combustion engine cars, with EV batteries requiring lithium, cobalt, nickel, and other critical minerals, much of which is currently processed in China. Yet there is no fully settled USMCA framework for how EV battery content should be calculated or what share must originate within North America.

The United States is also pushing for higher regional content thresholds for autos, steel, aluminum, and other strategic sectors, along with specific sourcing rules for EV batteries and powertrains. It is also seeking tighter verification and enforcement mechanisms to prevent misclassification and circumvention of rules of origin. More ambitiously, Washington is pressing for minimum U.S. content requirements — not just North American content — with the explicit aim of shifting production inward and encouraging domestic manufacturing rather than further relocation to Mexico or Canada.

Improvement on labor standards was one of the crowning achievements of the USMCA. A new mechanism—the Rapid Response Labor Mechanism (RRLM)—was designed to address facility-specific violations of workers' rights (mostly applied to Mexico) with the other countries able to request an independent panel review of a specific plant and impose targeted trade sections if violations were confirmed.

The results so far have been mixed. The RRLM has been invoked dozens of times and has produced real outcomes — back pay, union elections, facility remediation. Compared to NAFTA's unenforceable labor agreement, the RRLM is a genuine improvement. But its reach is limited: it applies only to a narrow slice of Mexican manufacturing facilities, relies on U.S. government initiative to trigger cases, and has not touched the vast informal economy where most Mexican workers are employed.

Mexico has implemented a number of reforms since the signing of USMCA, but the overall picture remains mixed. Real wages have risen—particularly with substantial increases in the national minimum wage—and the export manufacturing sector has attracted higher-wage foreign direct investment. However, structural challenges persist. The coexistence of a large informal economy alongside a more dynamic formal export sector has created a dual labor market, limiting the broader diffusion of productivity gains. In this sense, USMCA's labor provisions have been a net positive, but they are not sufficient on their own to close the wage gap with Mexico's northern

partners; complementary domestic policies—particularly in education, formalization, and infrastructure—remain critical.

At the same time, even the current labor reforms under the USMCA framework have proven politically and institutionally challenging. Mexico's new labor regime—including independent union certification, collective bargaining legitimacy reviews, and mandated wage increases—is still being implemented. Mexican officials argue that the U.S. is pressing for faster compliance than domestic institutions can realistically support, raising concerns about the pace and sustainability of reform.

Despite these contentious issues, we expect the U.S. to push for a further expansion of the Rapid Response Labor Mechanism (RRLM), including faster case resolution, broader application beyond manufacturing, stronger enforcement of forced labor provisions, higher wage floors in Mexican manufacturing, and extension to smaller supplier facilities within the auto supply chain. Forced labor—particularly goods produced in China and routed through Mexican supply chains—is increasingly being framed not only as a labor concern, but also as a strategic tool to limit China's trade footprint in North America.

Another thorny issue is the dispute settlement architecture. Canada and Mexico favor a system in which dispute panel rulings are binding and enforceable—providing the predictability needed for long-term investment. The United States, by contrast, has tended to treat dispute panels as one tool among many, alongside tariffs and bilateral pressure. At the same time, investor-state dispute settlement (ISDS) was significantly curtailed under USMCA relative to NAFTA. U.S. investors in Mexico have largely lost access to international arbitration, retaining it only for certain energy and infrastructure investments under a more restrictive framework. As a result, U.S. firms operating in Mexico face more limited legal recourse in cases of expropriation or discriminatory treatment.

More broadly, NAFTA had no expiration date—its permanence was the point. Businesses could make long-term capital commitments knowing that market access rules would endure beyond election cycles. USMCA replaced that permanence with a conditional, time-limited structure: a 16-year term with a mandatory review at six years. The intent was to increase flexibility; the effect has been to introduce recurring uncertainty. The U.S. 2025 National Security Strategy goes further, framing trade agreements less as durable frameworks for commercial predictability and more as instruments of strategic leverage.

A range of additional issues centers on sector-specific trade, with Mexico's energy policy remaining a persistent point of friction for both the U.S. and Canada since USMCA came into force. Under the previous administration of AMLO—and continuing under President Sheinbaum—Mexico has pursued a strategy of reasserting state control over oil, gas, and electricity through Pemex and CFE, the state-owned utility. This has involved regulatory changes that favor state entities over private and foreign investors, restrictions on renewable energy development, and preferential grid access for CFE.

The United States and Canada have filed dispute settlement cases arguing that Mexico's energy policies violate USMCA provisions on investment and state-owned enterprises; these cases remain active and unresolved. Canada, in particular, has identified access to Mexico's energy sector and greater transparency for private investors as key conditions for any extension of the agreement. Both U.S. and Canada are pressing for a rollback of discriminatory regulatory treatment of foreign energy investors, full compliance with USMCA disciplines on state-owned enterprises, and a level playing field for private renewable energy development.

Agriculture is another flashpoint. Two disputes have been simmering since USMCA's signing and remain unresolved heading into the review. The first involves Canada's dairy sector, which is protected by a supply management system that limits imports through tariff-rate quotas. USMCA granted U.S. dairy producers modestly improved access, but U.S. industry groups and the USTR have repeatedly argued that Canada has implemented these concessions in bad faith, using administrative mechanisms to limit actual market access. A USMCA dispute panel ruled against Canada in 2021; Canada made adjustments, but the U.S. deemed them insufficient and initiated a second case. The dispute remains ongoing and is unlikely to be easily resolved in the upcoming review.

The second issue is genetically modified corn. In 2023, Mexico moved to ban imports of genetically modified corn for human consumption—a policy that directly threatens U.S. corn exports, as the vast majority of U.S. corn is genetically modified. The United States filed a USMCA dispute, arguing that the ban lacks a scientific basis and violates the agreement's sanitary and phytosanitary (SPS) provisions, which require that restrictions be grounded in science rather than politics. A dispute panel ruled in favor of the United States in 2024, but Mexico has appealed and continues to contest the decision.

Cutting across all of the above is a more fundamental shift in how U.S. trade policy is framed. USMCA is no longer being evaluated primarily as a commercial agreement. Instead, it is increasingly treated as a national security instrument—a mechanism to lock in a North American economic perimeter that excludes China, aligns Canada and Mexico with U.S. technology and export control policies, and conditions market access on geopolitical alignment.

This reframing has concrete implications. The United States has signaled it may use the review to push for deeper North American coordination on semiconductor export controls and to prevent circumvention through third-country affiliates; vendor security frameworks for next-generation telecommunications that effectively exclude Huawei and ZTE across all three countries; critical minerals processing rules that treat North America as a unified, trusted sourcing platform; and investment screening mechanisms aimed at keeping Chinese state-linked capital out of regional supply chains.

These issues are substantial, and negotiations are likely to be prolonged. At the conclusion of the joint review, the three governments must formally choose one of the following paths: (a)

renew the agreement as is, (b) revise it by renegotiating specific provisions, or (c) allow it to terminate upon expiration.

Under the first option, all three parties agree to extend USMCA in its current form for another six years, deferring substantive renegotiation to the next review cycle. This is the path of least resistance—it preserves certainty for businesses and investors, avoids the risk of a disorderly renegotiation, and buys time for political negotiations. The downside is that it leaves known issues unresolved: weaknesses in dispute settlement, incomplete labor enforcement, ongoing sector-specific disputes, and the absence of updated rules for emerging industries such as electric vehicles.

Under the second option, the parties agree to reopen and update targeted provisions while keeping the agreement in force. This is the most constructive—but also the most complex—outcome. It would allow the three governments to modernize rules of origin for EV batteries and powertrains, strengthen the Rapid Response Labor Mechanism, resolve ongoing agricultural disputes, and potentially address digital trade and pharmaceutical supply chain resilience. The risk is that reopening any part of the agreement creates pressure to reopen everything—and that negotiations conducted in the current political climate could yield an outcome worse than the status quo.

If no agreement is reached, USMCA would lapse and trade among the three countries would revert to World Trade Organization (WTO) baseline rules. Tariffs would return on most goods, and the elaborate dispute settlement and labor enforcement architecture built under USMCA would disappear. This outcome would be economically disruptive for all three countries, though the impact would likely be most severe for Mexico, given its heavy reliance on access to the U.S. market.

Our baseline is the second path—a protracted, contentious renegotiation that falls short of a clean extension but well short of termination. The United States is positioned to extract significant concessions across a range of issues: tighter auto content requirements, expanded investment screening for nonmarket economies, stronger forced labor enforcement, and—critically—a strengthened nonmarket economy clause to prevent USMCA from serving as a backdoor for Chinese goods into the U.S. market. The transshipment problem sits at the center of this push: Chinese goods are increasingly routed through Vietnamese and Mexican intermediaries, altering country-of-origin labels without materially changing underlying supply chains. Closing that loophole is a core U.S. objective, and one that places particular pressure on Mexico as the primary transit point.

The sheer scale and depth of North American integration make a full break implausible—nearly $2 trillion in annual trilateral trade, deeply integrated auto and electronics supply chains, and energy linkages that cannot be easily unwound (Figure D2 and Figure D3). But the administration has made clear it will not simply renew the existing agreement. Expect a deal—eventually—but not a tidy one, and not by July 1.

Figure D2
North American Trade Ties Run Deep: US Exports Have Risen Dramatically Since COVID
(U.S. goods exports to USMCA countries)

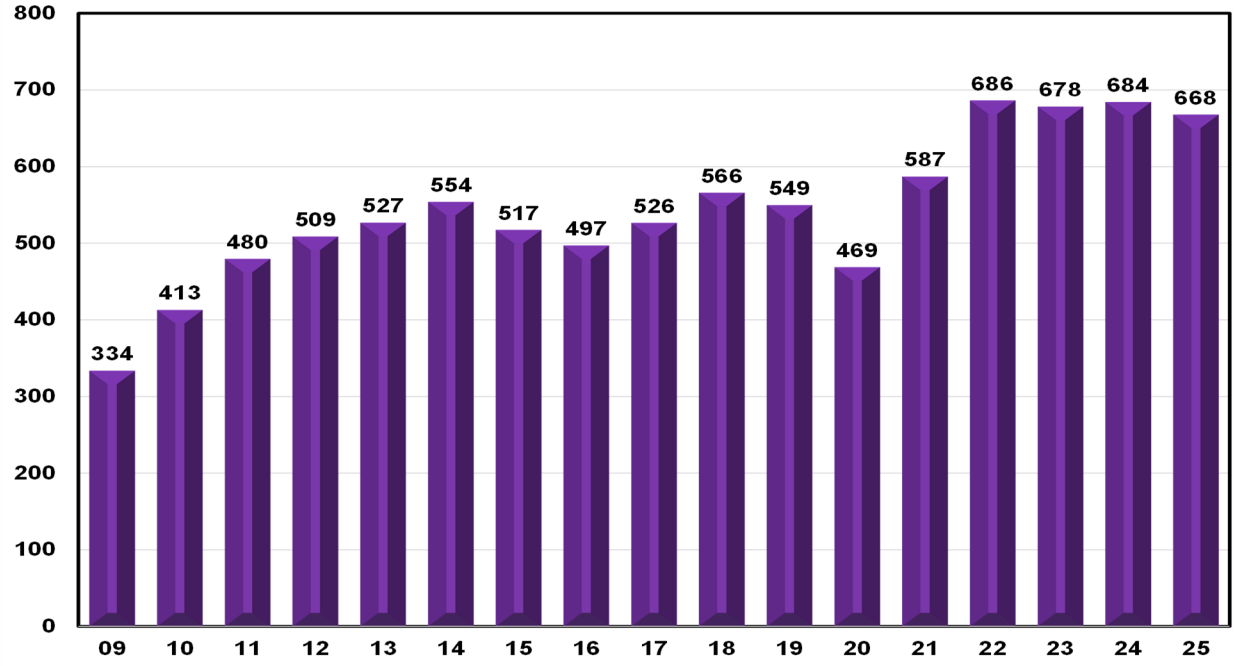
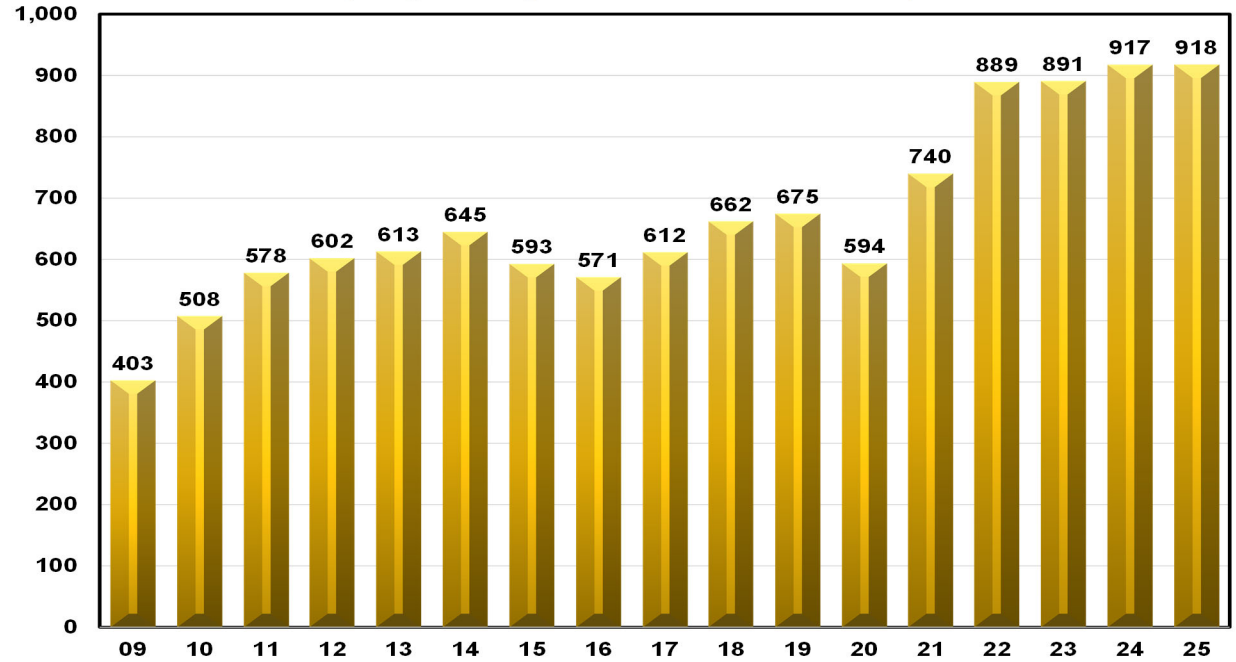


Figure D3
USMCA Imports to the U.S. Are Approaching $1 trillion
(U.S. goods imports from USMCA countries)



E. U.S. TRADE: A SUCCESS STORY IN A TURBULENT YEAR

After a disappointing 2024, in which merchandise export growth barely cleared 2%, U.S. goods exports rebounded in 2025, rising 6% to a record $2.2 trillion. However, much of the headline gain was distorted by a surge in nonmonetary gold shipments, which alone added nearly $50 billion. Strip out gold, and the underlying picture is more nuanced. Capital goods were the clear engine of growth, adding $63.9 billion. Aerospace led the charge: civilian aircraft exports rose $15.7 billion and aircraft engines another $12.6 billion—a combined $28 billion increase—as Boeing worked through its multi-year backlog and airline fleet renewal accelerated. Pharmaceuticals also posted a solid $12.2 billion gain. Energy exports told a shifting story. Natural gas exports rose $19.3 billion, extending the post-Ukraine pivot toward Europe, while crude oil exports fell $18.8 billion, largely reflecting lower oil prices. But the energy export story is increasingly about gas, not oil. Vehicles were a notable weak spot, with automotive exports down $16.8 billion, as tariff uncertainty disrupted North American supply chains and softer global demand weighed on U.S.-made trucks and SUVs.

Services exports, meanwhile, surged $82.1 billion to a record $1.23 trillion, led by other business services (+$26.2B), intellectual property charges (+$21.9B), and financial services (+$14.3B). The services surplus widened to $339.5 billion—up nearly 9%—continuing to provide a critical offset to the goods deficit.

The import side tells the more dramatic story. Total goods imports rose $143.2 billion to $3.44 trillion, driven overwhelmingly by a surge in technology hardware—the physical backbone of the global AI buildout. Capital goods imports jumped $165.9 billion, led by computers (+$101.4B), computer accessories (+$42.7B), and telecommunications equipment (+$30.3B), which together accounted for roughly $174 billion in additional imports, reflecting a flood of servers, chips, and networking gear—primarily from Taiwan, South Korea, Vietnam, and Mexico—into U.S. data centers. In contrast, energy imports moved sharply lower, with crude oil down $27.6 billion as robust domestic production displaced foreign supply. Automotive imports also declined $52.0 billion—the largest single drop—with passenger cars falling $34.4 billion amid tariff disruptions, softer demand, and the ongoing EV transition. Industrial supplies presented a split picture: finished metal shapes surged $53.6 billion as firms front-loaded steel and aluminum ahead of Section 232 tariffs, but the decline in crude oil more than offset those gains.

The most consequential shift in U.S. trade in 2025 was not the aggregate deficit—it was where trade flowed, and where it stopped. The tariff war with China triggered one of the sharpest bilateral trade contractions in modern U.S. history, even as import demand was rapidly redirected

toward Southeast Asia and Taiwan. The result is a trading map that looks fundamentally different from just a few years ago—and the redirection is still accelerating, not stabilizing.

U.S. goods imports from China fell 29.7% ($130.4 billion) in 2025, while exports to China declined 25.8% ($36.9 billion), narrowing the bilateral deficit by 31.6% to $202.1 billion. But this was not rebalancing—it was outright trade destruction: total bilateral goods trade dropped to $414.7 billion, down from roughly $580 billion the year before, erasing nearly a third of the relationship in a single year. At the same time, a growing share of Chinese goods is being routed through intermediaries such as Vietnam and Mexico, masking true origin in official statistics. The apparent decoupling therefore overstates the extent of separation—the supply chain has shifted, but not fully broken.

Taiwan's deficit with the U.S. surged by $73.0 billion to $146.8 billion in 2025—the largest single-year increase of any major bilateral trade relationship—driven almost entirely by a massive jump in semiconductor and advanced electronics imports. U.S. imports from Taiwan reached $201.4 billion, up $85.2 billion, as demand for cutting-edge chips tied to the global AI buildout accelerated sharply. At the center of this surge is Taiwan Semiconductor Manufacturing Company (TSMC), the world's dominant producer of the most advanced semiconductors—the critical inputs powering AI training and inference—whose output now anchors a growing share of U.S. import demand. The scale of the shift is striking: Taiwan's deficit is now approaching that of China's, but unlike the China relationship—politically contested and tariff-exposed—the Taiwan semiconductor channel is strategically protected and, for now, effectively irreplaceable.

Vietnam's deficit surged by $54.7 billion to $178.2 billion in 2025, making it the third-largest U.S. goods deficit partner. The increase reflects Vietnam's role as the primary beneficiary of supply chain diversion away from China: consumer electronics assembly, furniture, apparel, footwear, and other lower-value manufactured goods have been steadily rerouted through Vietnamese factories, many of which are Chinese-owned or managed. This is supply chain diversion in its clearest form—the goods are still often designed in the West and rely heavily on Chinese inputs, but the final assembly and export origin have shifted. The Port of Long Beach, for example, reported that China's share of its cargo fell from 70% to 60% over 2025, with Vietnam among the principal recipients of that reallocation.

Mexico's goods deficit widened to $196.9 billion—the second-largest bilateral gap—underscoring the resilience of deeply integrated North American supply chains. Despite tariff threats, flows in auto parts, electronics assembly, and agriculture continued largely uninterrupted, as the cost of disrupting cross-border production networks far exceeded the cost of higher duties.

Canada's deficit, by contrast, came in at a more modest $46.4 billion—smaller than expected given the political turbulence—largely because the value of Canadian energy exports declined alongside oil prices, compressing trade flows even as bilateral tensions rose.

The European Union remains the largest U.S. deficit partner at $218.8 billion, driven by pharmaceuticals from Ireland (a $114.2 billion deficit alone), vehicles and machinery from Germany ($73.0 billion), and chemicals from across the continent. But the most striking European development is the Netherlands: the U.S. ran a $60.7 billion goods surplus in 2025, making it the largest U.S. surplus partner globally. This is almost entirely an LNG story—Rotterdam functions as Europe's primary gas distribution hub, so U.S. LNG shipments recorded as exports to the Netherlands are often re-exported across the continent to Germany, France, and Eastern Europe. The Dutch surplus is therefore less a bilateral anomaly than a proxy for the scale of U.S. energy export penetration into Europe.

It should be noted however, that much of the 2025 trade data—particularly the early-year import surge—reflects front-loading ahead of tariff implementation rather than underlying demand. Importers rushed shipments into Q1 and Q2 to avoid higher duties, inflating headline figures before inventories swelled and ordering slowed sharply. That distortion will unwind through 2026, creating a statistical drag on import volumes even if underlying consumption remains firm.

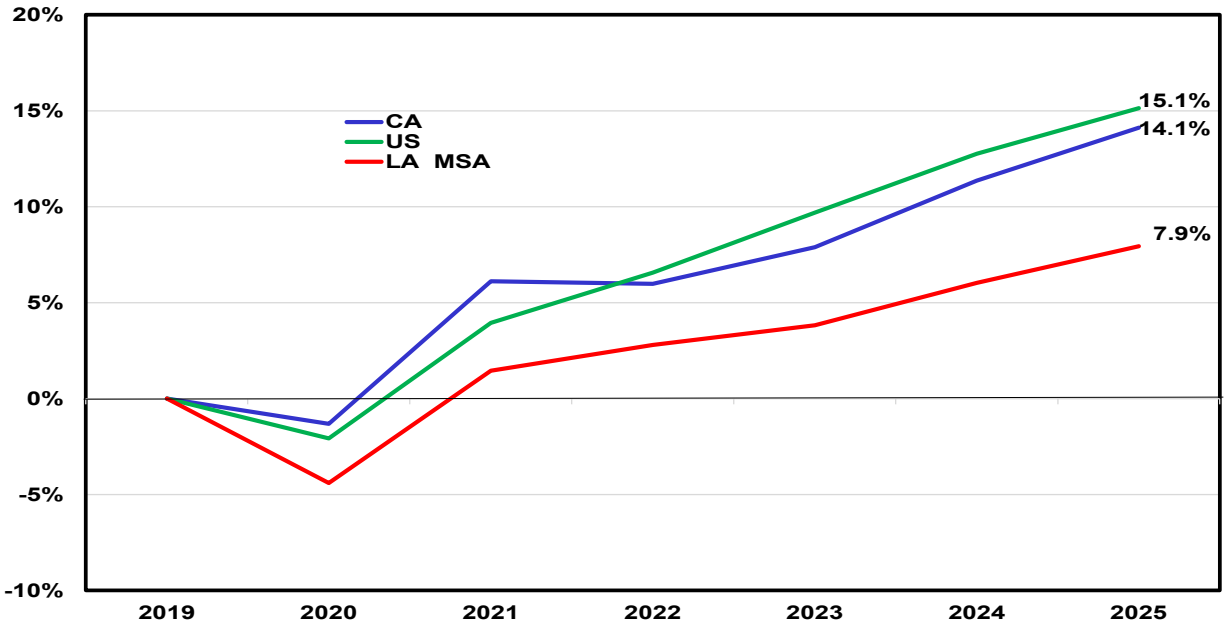
We project U.S. goods exports to grow 10.2% in 2026, led by LNG and petroleum shipments—supported by Strait of Hormuz disruptions and expanding terminal capacity—alongside continued aerospace delivery normalization and steady electronics demand. Growth then moderates to 6.4% in 2027 and 5.5% in 2028 as energy price premiums fade and the backlog-driven aerospace surge transitions to a steadier cadence. Chemicals remain the key laggard: lower input costs and restricted ethane exports to China weighed on 2025 performance, and persistent global overcapacity is likely to cap gains going forward.

F. REGIONAL EXPORTS: RECENT TRENDS AND FORECASTS

The Los Angeles–Long Beach–Santa Ana Metropolitan Statistical Area (LA MSA) is the second-largest in the nation by both population and real GDP. After flirting with stall speed in prior years—growing just 1.3% in 2022 and 1.0% in 2023—the region's economy showed signs of life in 2024, expanding by a more respectable 2.1% (latest available data). We estimate growth eased slightly to 1.8% in 2025, trailing the 2.1% pace of the U.S. economy and California's stronger 2.4% expansion.

Yet the broader picture remains far less encouraging. The LA MSA's recovery from the COVID-19 shock has lagged well behind both the state and the nation. In cumulative terms, real GDP growth in the region is only about half that of California and the U.S.—a striking shortfall for what is, by any measure, one of the country's most important economic engines (Figure F1). In 2023, the region's real GDP grew by 5.5%, and we estimate it expanded by an additional 3.8% in 2024. Despite these reasonably solid annual gains, the region has vastly underperformed its peers since the pandemic. In fact, the LA MSA ranks last among the ten largest metro areas in cumulative growth over that period. Since 2019, real GDP in the region has risen by just 17%, well below the gains seen in Houston MSA (42.2%), Dallas MSA (37.9%), and even San Francisco MSA (34.3%) (Figure F1).

Figure F1
Lagging Behind: LA Metro Area Has Underperformed the state and the U.S. since COVID
(cumulative growth since Jan 2020)

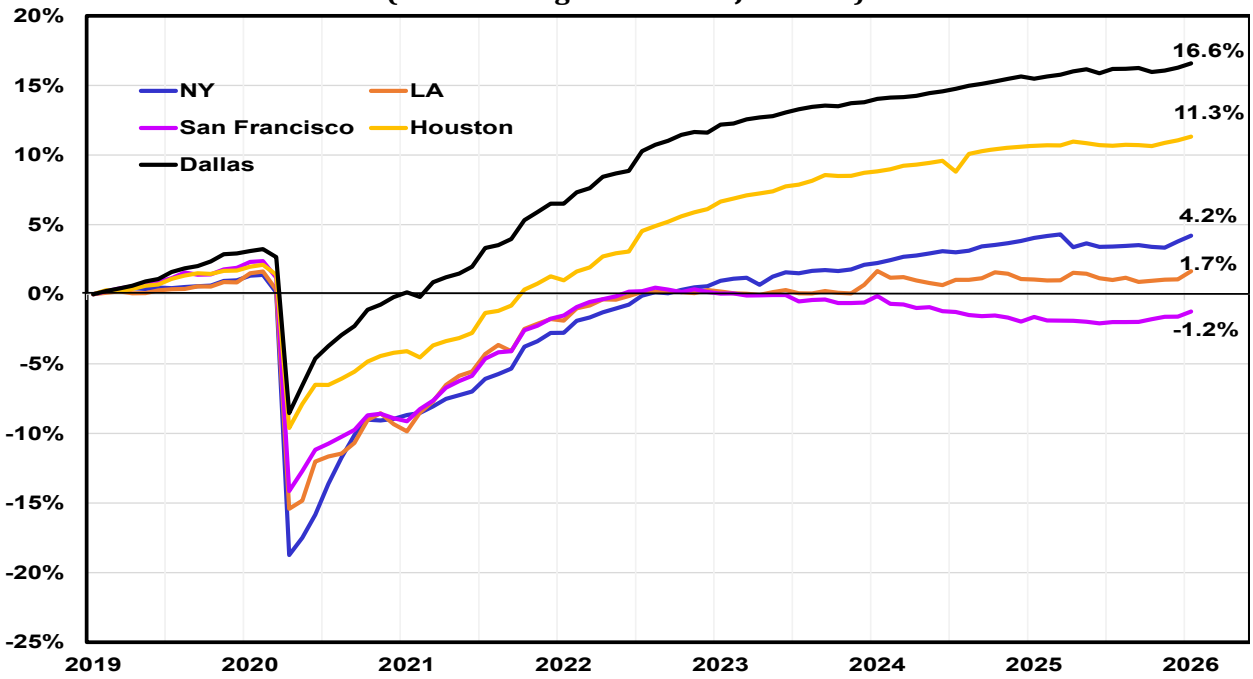


The performance of the labor market has been equally underwhelming. While a broader cooling has become a nationwide phenomenon more recently, the slowdown in the LA metro area set in much earlier—beginning in 2023, well before it took hold across the national economy last year. As of January 2026 (latest available data), employment in the LA metro area stands just 1.7%

above its pre-pandemic level—placing it near the bottom among major U.S. metros (Figure F2). By contrast, employment in Dallas metro area has surged by a striking 16.6% since 2019, while Houston has expanded by 11.3%, leaving most other regions in the dust. Even the New York metro area—a persistent laggard in the post-COVID recovery—has managed somewhat stronger growth at 4.2%. The only modest consolation for Los Angeles is that it is not the weakest performer: that distinction belongs to San Francisco, where payroll employment remains 1.2% below pre-pandemic levels.

More recent trends offer only limited encouragement. Employment growth in the LA MSA is running at a subdued 0.8% year-over-year—consistent with a labor market operating near stall speed. Still, this marks a modest improvement from late 2025, when job growth briefly turned negative. The unemployment rate has also stabilized in the 5.0%–5.5% range, down from a peak of 6.2% last summer. Looking ahead, we expect job growth to remain positive and to firm slightly relative to last year's flat performance. Even so, the outlook remains tepid: our baseline forecast calls for a modest 0.6% increase in employment—hardly the kind of momentum one would expect from an economy of this scale.

Figure F2
CA Metro Areas Have Struggled with Job Growth Over the Past Few Years
(cumulative growth since Jan 2020)

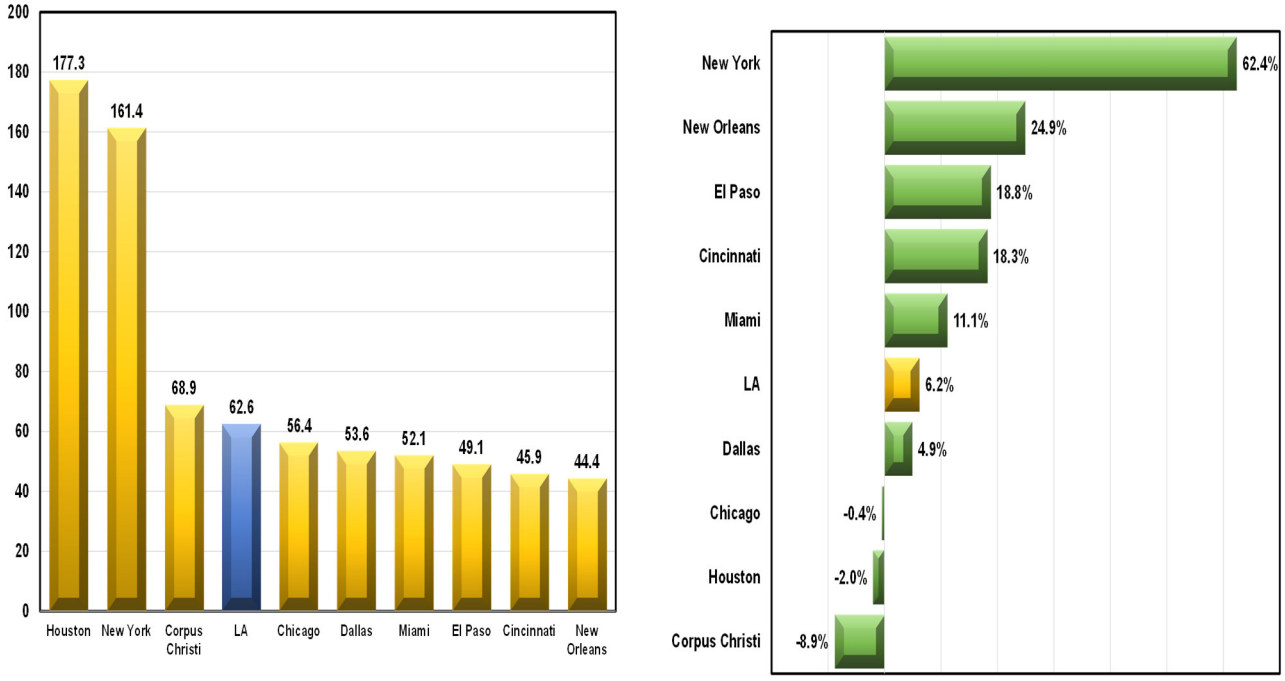


The region ranked fourth among all U.S. MSAs in 2024 for merchandise exports, with $62.5 billion in outbound goods—behind Houston ($177.3 billion), New York ($161.4 billion), and Corpus Christi ($68.9 billion) (Figure F3). Notably, this ranking has remained unchanged over the past four years. But merchandise goods exports have never been a primary engine for the LA metro area.

Relative to its size, the region exports far fewer goods as a share of GDP than any other major metro. The reason is largely structural: Los Angeles is built around industries that either do not produce exportable goods—such as entertainment, logistics, finance, and legal services—or that

export services rather than physical products. By contrast, Houston exports nearly three times as much in goods from an economy less than half the size of LA's, reflecting its deep specialization in physical commodities—crude oil, refined petroleum products, chemicals, and LNG—all of which flow through its port as merchandise exports. Other metros show similar patterns of specialization. Seattle, with an economy roughly one-quarter the size of LA's, punches far above its weight in aerospace exports, while San Jose—home to Silicon Valley's semiconductor base—exported $23.7 billion despite its much smaller economic footprint.

Figure F3
LA Metro Area Exports
(billions of dollars and y-o-y growth)



Perhaps the most striking development last year is the surge in New York's exports—a staggering 62% jump from the previous year. This outsized increase was driven overwhelmingly by a single category: nonmonetary gold, which was the largest contributor to U.S. export growth nationally in 2025, adding nearly $50 billion to the total. The mechanics are unusual but important. The Federal Reserve Bank of New York holds vast quantities of gold on behalf of foreign governments and central banks. When foreign official institutions purchase gold from U.S. dealers and choose to store it at the New York Fed, the transaction is recorded as a U.S. export—even though the gold never physically leaves the vault. In 2025, as gold prices surged to record highs amid tariff uncertainty and heightened safe-haven demand, these transactions ballooned. Because they are booked through New York, they show up as a surge in New York MSA exports. Strip out gold, and the picture looks far less dramatic: New York's underlying export performance—while still supported by strength in pharmaceuticals, chemicals, and financial services—was considerably more modest.

Houston MSA exports declined modestly in 2025, falling by roughly 2%. This follows a dominant performance in 2024, when Houston led the nation with $180.9 billion in exports—exceeding the combined total of the New York and Los Angeles MSAs. The pullback in 2025 was driven by two distinct but related forces. First, lower energy prices weighed on the dollar value of exports. Crude oil prices declined over the year, reducing export values even as physical volumes remained robust. At the national level, crude oil exports fell by $18.8 billion—clearly a price effect rather than a collapse in production.

Second, the regional energy sector showed signs of softening. As oil prices drifted lower and uncertainty surrounding trade and tariff policy intensified, producers grew more cautious—many unwilling to expand drilling unless prices moved sustainably above $70 per barrel. The resulting decline in rig counts dampened activity in oilfield equipment and services, another key export category for the region. A similar dynamic played out in natural gas markets. Henry Hub prices fell from $4.29 in January to $3.32 by mid-year, even as LNG export volumes to Europe and Asia continued to rise. Once again, higher volumes were offset by lower prices, suppressing the overall dollar value of energy exports.

Closer to home, merchandise exports in the LA metro area rose for the first time since 2022, increasing by 6.2% in 2025. While a welcome development, the uptick appears to reflect a confluence of cyclical tailwinds and sector-specific factors rather than any meaningful shift in the region's underlying export orientation. Several forces were at play:

- **Aerospace recovery:** National civilian aircraft exports surged by 22% in 2025 as Boeing's production and delivery recovery gained momentum. While centered in Seattle and South Carolina, the rebound lifted activity among LA-area defense and aerospace suppliers—including firms such as Northrop Grumman, SpaceX contractors, and L3Harris—amid stronger defense procurement and satellite launch demand.
- **Computers and electronics:** California's exports of digital computer systems more than doubled in 2025, while computer accessories rose by 85%—making them the fastest-growing export categories. Orange County's electronics manufacturing base, which supplies components for data centers and communications infrastructure, captured some of this demand, though the bulk of the gains accrued to Northern California.
- **Agricultural transshipment:** Strong global demand for California almonds, pistachios, and other tree nuts—many of which are routed through the ports of Los Angeles and Long Beach to Asian markets—provided a modest boost to export activity in early 2025. This momentum faded later in the year as China's retaliatory tariffs began to weigh on demand.
- **Tariff front-loading:** Part of the early-2025 increase also reflected foreign buyers pulling forward purchases of U.S. goods ahead of anticipated tariff hikes—a temporary surge in demand that has since reversed.

Set against these tailwinds were some headwinds. China's retaliatory tariffs fell particularly hard on agricultural exports, with California's tree nuts, seafood, and specialty crops among the earliest targets—both during the 2018 trade war and again in the 2025 escalation. As a result, Chinese demand for LA-linked exports dropped sharply.

Indeed, the LA MSA is especially vulnerable to such retaliation. Its export base is more exposed than that of most large metros due to its deep integration with Asian markets—particularly China, Japan, and South Korea. These countries are not only the region's largest sources of imports, underpinning the dominance of the San Pedro Bay port complex, but also the primary destinations for what LA does export: agricultural goods, aerospace components, electronics, and entertainment products. This dual dependence creates a structural vulnerability. When trade tensions escalate, LA sits squarely in the crossfire. Agricultural exports are typically among the first to be targeted, as they are both politically salient and easily substitutable. That pattern repeated in 2025.

The effects ripple directly through the region's export channels. California's almond and pistachio producers—who rely on China for roughly 25–30% of their export demand—are geographically concentrated in the Central Valley but ship overwhelmingly through the ports of Los Angeles and Long Beach. As tariffs suppress demand, the impact shows up not just in farm revenues, but in reduced export volumes moving through LA's port infrastructure.

The Port of Los Angeles handled roughly 6.7 million loaded TEUs in 2025, accounting for about 17% of all containerized waterborne trade moving through U.S. seaports. The neighboring Port of Long Beach moved a record 9.9 million TEUs, surpassing the 9 million mark for the first time. But scale alone masks a critical imbalance: these ports are overwhelmingly import-driven. At Long Beach, import volumes reached an unprecedented 4.8 million TEUs in 2025, fueled in part by aggressive front-loading as importers rushed to get ahead of new tariffs. Exports, by contrast, totaled just over 1 million TEUs—respectable, but far smaller in comparison. In effect, roughly four containers arrive for every one that departs, underscoring Los Angeles' role as an import gateway rather than an export platform.

This imbalance is perhaps most visible in the volume of empty containers leaving the ports. When imports vastly exceed exports, containers arrive full but must be shipped back empty—a costly inefficiency that reflects the broader trans-Pacific trade imbalance. In strong import months, empty containers can account for 35% or more of total port movements. While not unique to Los Angeles, the phenomenon is particularly pronounced given the region's lopsided trade flows.

The tariff disruptions of 2025 added another layer of complexity. Weighing on activity were China's retaliatory tariffs, which reduced demand for U.S. goods across Asia—a direct headwind for LA exports, given the region's heavy reliance on Asian markets. China's share of cargo moving through the port complex fell from roughly 70% to 60% by the end of 2025, as trade flows shifted toward Vietnam and other Southeast Asian economies. However, tariff front-loading provided a temporary boost. Global buyers accelerated purchases of U.S. goods ahead of anticipated trade restrictions, lifting export volumes in early 2025 before fading later in the year.

Though merchandise exports from the LA metro area are relatively small given the scale of its economy, focusing solely on goods exports does a disservice to the region's true export strength, which lies largely in services and intellectual property. These flows are real and economically significant, but largely invisible in standard MSA export statistics because they are not physically shipped in containerized cargo through the ports. While analyzing services exports is beyond the scope of this report, it is worth noting a few important points that are missed when focusing exclusively on goods exports.

The entertainment industry—Hollywood in particular—is, by any reasonable measure, one of the most successful export engines in American history. Major studios headquartered in and around Los Angeles distribute content to more than 200 countries, with international markets accounting for over 70% of total box office revenue in 2024. Streaming platforms such as Netflix, which produces extensively in LA, generate billions in subscription revenue from foreign users—revenue that is recorded as U.S. services exports.

Table F

Hollywood Export Footprint

Metric	Data Point	Notes
International share of Hollywood box office (2024)	70%+	Long-running trend toward international revenue dominance
Entertainment industry contribution to LA GDP (Q4 2024)	$142 billion	Includes production, distribution, streaming
International co-production deals in LA (2023→2024)	+32%	Driven by streaming platform global content demand
Digital content revenue from international clients (2023→2024)	+25%	Direct international services export flow
Streaming content production in LA (Q4 2023→Q4 2024)	+28%	Despite overall Hollywood employment declining
Sound stage occupancy in LA (2024)	63%	Down from 90%+ historically — production flight to other states
On-location shoot days in LA vs. 2019	-53% (Q4 2019→Q4 2024)	Canada, Georgia, New Mexico competing aggressively

Nonetheless, the region is gradually losing its grip on the industry, as production increasingly shifts outside Los Angeles. Canada surpassed California as the top location for feature film production in both 2023 and 2024, aided by generous federal and provincial tax incentives that California has been slow to match. Georgia, New Mexico, Australia, and the United Kingdom have also emerged as aggressive competitors. Much of the content distributed globally still originates in LA boardrooms and carries LA brand names—but the physical production, along with the associated jobs and local economic spillovers, is increasingly taking place elsewhere.

Los Angeles is also a significant—but often underappreciated—exporter of financial and professional services. The region is home to important asset managing firms (Capital Group, Western Asset, PIMCO), large law firms with extensive Pacific Rim practices, architecture and design firms with global project portfolios, and advertising and marketing agencies serving multinational clients. These activities generate real export revenue—foreign clients paying LA-based firms for services rendered—yet none of it appears in traditional goods export statistics.

At the national level, services exports rose to a record $1.23 trillion in 2025, an increase of $82.1 billion from 2024. LA's contribution to that growth—through financial services, intellectual property charges, and other business services—is substantial but not captured at the MSA level, highlighting a fundamental gap in measuring the region's true trade position.

A Forward-Looking Assessment of LA Goods Exports

Focusing on the outlook for merchandise exports—the primary aim of this report—we see several areas of potential growth for the region over the forecast horizon:

- **Space projects:** SpaceX's Hawthorne facility and the emerging cluster of space-related firms in the South Bay (Rocket Lab, Relativity Space, Vast) represent a genuinely new export category. Satellite manufacturing and launch services constitute both goods and services exports that did not exist at scale a decade ago. As the commercial space sector matures, LA could reemerge as a meaningful aerospace exporter—albeit through a very different channel than the Boeing-era dominance in commercial aircraft.
- **Defense buildout:** Northrop Grumman's B-21 Raider program in Palmdale, along with the broader expansion of classified defense programs across the LA basin, represents export-oriented production poised for continued growth amid rising global defense spending.
- **Biotech / Medtech:** Orange County's medical device and biotech cluster is an emerging export sector. Firms based in Irvine and surrounding areas—specializing in diagnostics, orthopedics, and cardiovascular devices—are steadily expanding international distribution channels, particularly into Asia.
- Film production retention: California's expanded film tax credit program (if recent proposals to raise the credit to 30% or more are enacted) could begin to slow—or partially reverse—the migration of production to other states and countries. Retaining physical production in LA would support local employment and sustain associated services export revenues.

This Report

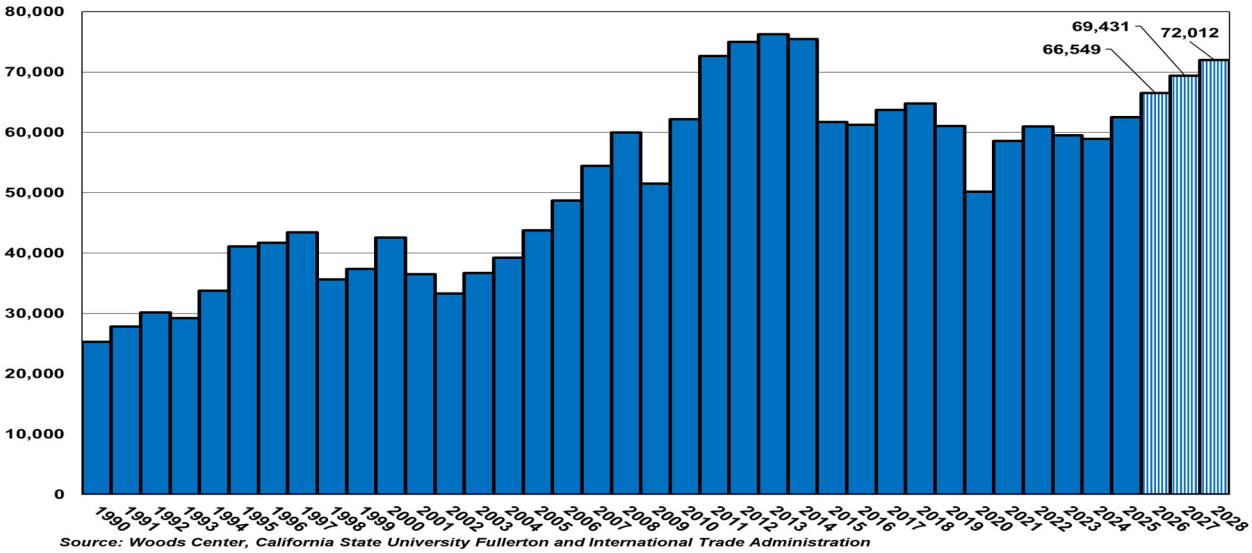
At the time of this report, merchandise export data for the Los Angeles MSA is available from the International Trade Administration (ITA) for the period 2005 through 2024. For 2025, total merchandise export figures are provided by the U.S. Census Bureau. While the ITA offers export data by region, country (top 50), and sector (top 30) for most years, coverage is considerably more limited for 2005, 2006, 2007, and 2024, particularly in terms of geographic and product-level detail. No official export data exist for years prior to 2005.

To fill this gap, the Woods Center at California State University, Fullerton provides historical estimates for the pre-2005 period—including by country, region, and sector—as well as projections for 2025, using an econometric model calibrated to trends in regional, state, national, and international trade flows. These estimates are aligned with the methodological updates adopted by the U.S. Census Bureau for export tracking (see Appendix A2 and A3). Forecasts for 2026–2028 are derived from statistical and econometric models, incorporating historical export estimates, California and national trade volumes, trade-weighted exchange rates, labor productivity in export-related industries, and projected U.S. and global real GDP growth.

F.1 Los Angles MSA Merchandise Exports

Merchandise exports from the Los Angeles MSA bounced back in 2025 to grow by 6.2% after declining for the two previous years. As the global economy continued to expand moderately, growth in merchandise exports from the Los Angeles MSA slightly exceed the 5.7% increase obtained by the U.S. For 2025, merchandise exports reached $62.6 billion and now finally exceed the pre-pandemic levels by $1.5 billion. Even with this increase, merchandise exports remain a massive $13.7 billion below the record high of $76.3 billion in 2013 (Figure F4 and Table F1).

Figure F4
Los Angeles MSA Total Merchandise Exports
(millions of dollars)



Source: Woods Center, California State University Fullerton and International Trade Administration

U.S. goods exports are projected to grow by a robust 10.2% in 2026, driven by a confluence of factors: surging LNG and petroleum exports—boosted by disruptions in the Strait of Hormuz—a continued recovery in aerospace deliveries, and sustained electronics demand tied to the global buildout of AI infrastructure. Growth is expected to moderate to 6.4% in 2027 and 5.5% in 2028, as the energy price premium fades, the Iran conflict comes to a resolution, new LNG capacity from

Qatar and Australia intensifies global competition, and aerospace export growth moderates as Boeing's delivery backlog clears and production normalizes to a sustainable pace.

The LA MSA is projected to see export growth of 6.4% in 2026, 4.3% in 2027, and 3.7% in 2028—solid rates that nonetheless consistently trail the national pace by roughly 3 to 4 percentage points over the forecast horizon (Table F1). The gap is structural, not cyclical. The national outperformance in 2026 is being driven largely by energy exports—LNG, crude oil, and refined petroleum products—categories in which Southern California has virtually no production base. The region's export economy is instead concentrated in aerospace components, electronics, agricultural products, and services. These sectors benefit from the same global growth environment, but without the energy price windfall driving the national headline. In practical terms, LA's projected export growth of 6.4% in 2026 is a solid outcome for a services-dominant, import-oriented metro—it simply appears modest relative to a national figure buoyed by the Gulf Coast energy complex.

Table F1
Los Angeles MSA Total Merchandise Exports
(millions of dollars)

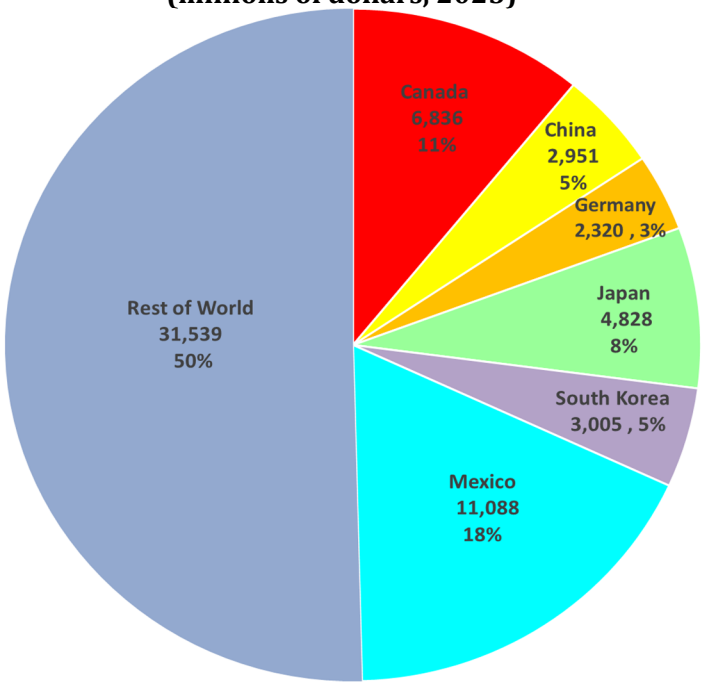
Year	Total Export Volume	Growth Rate
1990	25,290	n/a
1991	27,824	10.0%
1992	30,208	8.6%
1993	29,229	-3.2%
1994	33,757	15.5%
1995	41,113	21.8%
1996	41,739	1.5%
1997	43,480	4.2%
1998	35,669	-18.0%
1999	37,372	4.8%
2000	42,573	13.9%
2001	36,538	-14.2%
2002	33,324	-8.8%
2003	36,725	10.2%
2004	39,279	7.0%
2005	43,814	11.5%
2006	48,718	11.2%
2007	54,433	11.7%
2008	59,986	10.2%
2009	51,528	-14.1%
2010	62,168	20.6%
2011	72,689	16.9%
2012	75,008	3.2%
2013	76,306	1.7%
2014	75,471	-1.1%
2015	61,759	-18.2%
2016	61,246	-0.8%
2017	63,753	4.1%
2018	64,815	1.7%
2019	61,041	-5.8%
2020	50,185	-17.8%
2021	58,588	16.7%
2022	60,980	4.1%
2023	59,562	-2.3%
2024	58,906	-1.1%
2025	62,566	6.2%
	Forecast	
2026	66,549	6.4%
2027	69,431	4.3%
2028	72,012	3.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.2 Los Angeles MSA Merchandise Exports by Country

The six largest merchandise export destinations for the Los Angeles MSA in 2025 were: Mexico ($11.1 billion, 17.7% of total exports), Canada ($6.8 billion, 10.9%), China ($3.0 billion, 4.7%), Japan ($4.8 billion, 7.7%), South Korea ($3.0 billion, 4.8%), and Germany ($2.3 billion, 3.7%), as shown in Figure F5 and Table F2. For 2025, growth in merchandise exports varied considerably. Export growth was largest to Germany (10.2%), followed by Mexico (9.2%), South Korea (8.3%) and Japan (7.2%). While the decrease in exports to Canada was 1.4%, there was a staggeringly 32.3% decline to China as trade tensions between the U.S. and China escalated.

Figure F5
Los Angeles MSA Exports by Country
(millions of dollars, 2025)



Mexico remains the dominant export destination for the LA MSA, with $10.2 billion in 2024, rising an estimated 9.2% in 2025 to approximately $11.1 billion. The relationship is anchored in motor vehicles and parts—a supply chain that has deepened steadily as nearshoring continues to pull manufacturing closer to the U.S. border. The upcoming renegotiation of USMCA, while politically contentious, is unlikely to disrupt these ties. As noted earlier, the structural integration of North American supply chains remains firmly intact, supported by strong economic incentives on both sides. Looking ahead for Mexico, we project continued solid growth of 8.8% in 2026, moderating to 6.6% in 2027 and 5.9% in 2028, as the initial nearshoring surge transitions into a more sustainable pace of expansion.

Canada, the LA MSA's second-largest trading partner, held steady at $6.9 billion in 2024 before posting a modest estimated decline of 1.4% in 2025 to approximately $6.8 billion—reflecting broader bilateral trade uncertainty during the tariff adjustment period. As with Mexico,

the upcoming USMCA renegotiation looms large, but the depth of cross-border integration in aerospace, pharmaceuticals, and industrial goods provides a durable foundation for recovery and expansion in bilateral trade ties. We expect exports to Canada to rebound, growing by 6.4% in 2026 and averaging roughly 1%–5% annually through 2027–2028, reaching an estimated $7.7 billion by the end of the forecast horizon.

China's trajectory is the defining feature of the LA MSA's shifting trade landscape. After declines of 12.2% in 2023 and 8.2% in 2024, exports to China accelerated their slide, and by 2024 China had been overtaken by Japan, falling to fourth place among the region's trading partners. These shifts began under the first Trump administration and were largely maintained under Biden, reflecting a durable reorientation of trade policy. The estimated 32.3% contraction in 2025—the steepest among major partners—reduced export volume to roughly $2.95 billion and pushed China into fifth place, a position we expect it to hold throughout the forecast horizon. The decline is concentrated in technology and manufactured goods central to LA's export base—computers, semiconductors, electronics, and communications equipment—all of which face significant tariff exposure under the current trade regime.

Exports to China stabilize in our forecast, with a further modest contraction of 4.3% in 2026 followed by a return to low positive growth of 2.2% and 3.7% in 2027 and 2028, respectively. Even so, at an estimated $3.2 billion by 2028, China remains a distant fifth—less than a third of Mexico's projected volume and well below its historical position as the region's third-largest partner. The shift is structural rather than cyclical: tariffs of this magnitude reconfigure supply chains, and once reconfigured, they rarely revert.

Japan and South Korea emerge as the standout performers of the forecast period, and their rise to third and fourth place in the MSA's partner rankings is consistent with broader trends in U.S. trade reorientation toward allied technology economies. Japan edged past China to become the third-largest destination in 2024 at $4.5 billion, growing 8.6% that year after a weak 2023. South Korea, at $2.8 billion in 2024, posted a 3.2% decline but recovered sharply with an estimated 8.3% gain in 2025 to approximately $3.0 billion. Both countries have signed new trade agreements with the U.S. under the current administration, and while some uncertainty remains following the recent Supreme Court decision, we expect exports to these markets to grow at robust rates over the forecast period.

The sectoral alignment underpinning this growth is strong. Both economies are major importers of aerospace components, semiconductor manufacturing equipment, advanced electronics, and precision instruments — categories that align directly with LA's export base. South Korea's semiconductor sector reached record export levels in 2024, driven by surging demand for AI-related memory chips, creating reciprocal demand for the upstream equipment and components that Southern California producers supply. Japan's 2025 export strategy similarly prioritizes next-generation semiconductors, robotics, and medical devices — again directly complementary to what the MSA produces.

Our forecast projects growth averaging 5%–8% annually for South Korea and 5%–7% for Japan through 2027–2028—the strongest sustained performance among the LA MSA's major trading partners. By 2028, Japan is projected to reach approximately $5.7 billion and South Korea $3.6 billion, with both consolidating their positions as the region's leading Pacific trading partners in the post–China reorientation landscape.

Germany, the LA MSA's only major European partner in the top tier (ranked sixth), posted solid growth of 4.6% in 2024 to $2.1 billion, rebounding from a volatile 2023 (-45.5%, partly reflecting one-off base effects). The estimated 10.2% expansion in 2025, to roughly $2.3 billion, reflects improving bilateral trade flows in motor vehicles, industrial machinery, and pharmaceuticals. Growth is expected to moderate to 5.1% in 2026, 3.1% in 2027, and 2.5% in 2028, bringing exports to an estimated $2.6 billion—a steady, if unspectacular, trajectory consistent with Germany's relatively stable but structurally constrained demand environment.

The "rest-of-world" category—which aggregates all partners outside the top six—is estimated to have grown a robust 12.4% in 2025, the strongest performance of any category and a clear signal that trade diversion from China is extending beyond the major partners. This reflects a broadening of LA's export footprint across Southeast Asia, India, the Middle East, and Latin America. Growth is expected to moderate to 6.3% in 2026 and to 3.2% in both 2027 and 2028, as the initial surge in diversion-driven activity gives way to a more normalized pace of expansion as new trade relationships mature.

Table F2
Los Angeles MSA Exports by Country
(millions of dollars)

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
1999	5,096	860	704	4,933	1,568	4,815	19,397	37,372
2000	5,949	1,322	755	6,700	2,293	6,196	19,359	42,573
2001	5,125	1,816	756	6,203	1,783	6,003	14,853	36,538
2002	4,323	1,814	745	4,414	1,586	5,934	14,509	33,324
2003	4,849	2,302	689	4,599	1,708	5,418	17,160	36,725
2004	5,600	3,041	749	5,452	2,186	5,970	16,281	39,279
2005	6,397	3,649	837	5,777	2,412	6,115	18,626	43,814
2006	6,895	5,068	1,039	5,791	2,577	7,847	19,500	48,718
2007	8,871	6,005	1,115	5,869	3,155	6,559	22,858	54,433
2008	9,246	5,988	1,639	6,070	3,436	7,945	25,661	59,986
2009	7,127	4,964	1,290	5,049	2,695	8,936	21,467	51,528
2010	8,061	6,506	1,458	5,558	3,038	14,205	23,342	62,168
2011	8,630	7,985	1,679	6,226	3,074	17,681	27,414	72,689
2012	8,904	7,244	1,594	5,970	3,089	18,340	29,867	75,008
2013	8,287	7,329	2,026	5,707	3,187	19,415	30,354	76,306
2014	8,251	7,221	1,885	5,580	3,149	16,845	32,540	75,471
2015	7,585	6,266	1,756	4,712	2,932	11,125	27,383	61,759
2016	7,121	5,507	1,925	5,126	2,745	9,881	28,940	61,246
2017	7,567	6,134	2,366	5,026	2,874	10,899	28,887	63,753
2018	7,774	5,866	2,661	5,621	3,181	11,853	27,860	64,815
2019	7,280	4,949	2,617	5,420	3,548	9,559	27,668	61,041
2020	6,101	4,134	2,711	4,332	2,546	8,853	21,508	50,185
2021	6,949	4,506	3,524	4,472	3,046	10,825	25,266	58,588
2022	7,480	5,412	1,921	4,495	3,073	10,633	27,966	60,980
2023	7,410	4,751	2,011	4,147	2,866	10,161	28,216	59,562
2024	6,935	4,361	2,104	4,505	2,774	10,155	28,072	58,906
2025	6,836	2,951	2,320	4,828	3,005	11,088	31,539	62,566
				Forecast				
2026	7,271	2,825	2,438	5,161	3,254	12,065	33,536	66,549
2027	7,624	2,888	2,513	5,481	3,466	12,864	34,595	69,431
2028	7,733	2,995	2,575	5,746	3,649	13,622	35,691	72,012

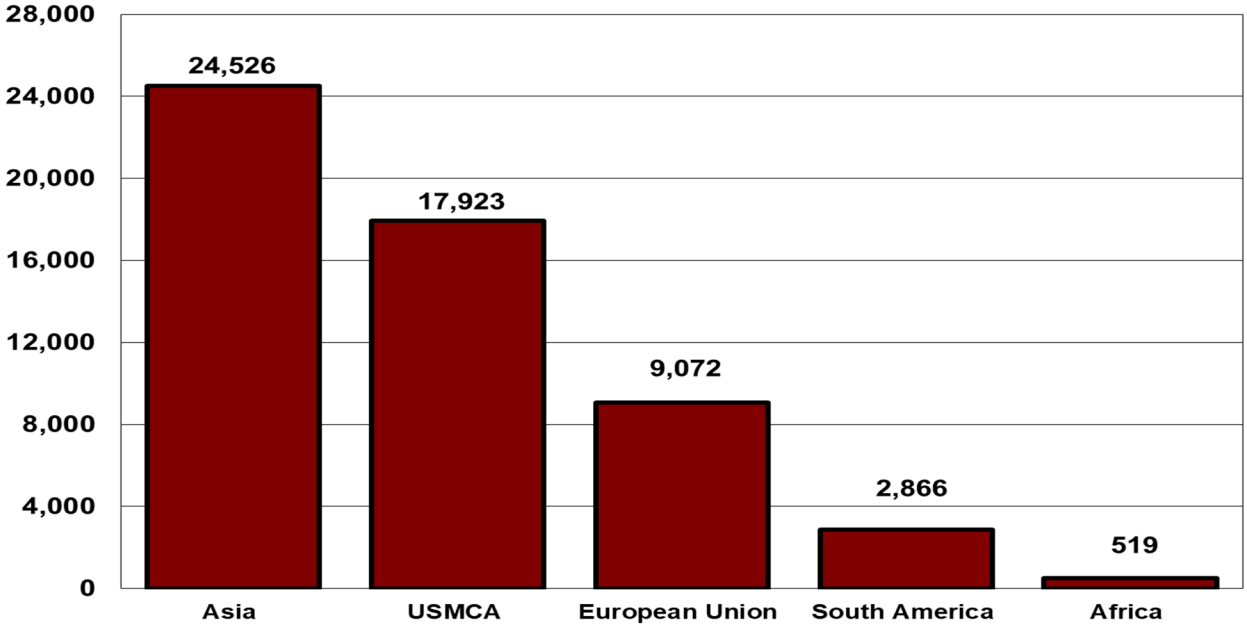
Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.3 Los Angeles MSA Merchandise Exports by Region

The three largest trading regions for the Los Angeles MSA in 2025 were: Asia ($24.5 billion, 39.2% of total merchandise exports), the USMCA partners—Mexico and Canada ($17.9 billion, 28.6%), and the European Union ($9.0 billion, 14.5%) (see Figure F6 and Table F3). Exports were estimated to have increased considerably to Germany by 10.2% with relatively strong increases to Mexico (9.2%), South Korea (8.3%) and Japan (7.2%). For Canada, exports are estimated to have declined by 1.4% in 2025, which is a decrease for three consecutive years. The largest decline for Los

Angles MSA exports was to China and estimated as 32.3% fall which follows relatively large drops in the previous two years.

Figure F6
Los Angeles MSA Exports by Region
(millions of dollars, 2025)



Source: *Woods Center California State University Fullerton and International Trade*

The regional profile of LA MSA exports in 2024 and 2025 reflects the same structural reorientation seen at the country level, with several region-specific dynamics worth highlighting.

Asia—the LA MSA's largest regional destination at $24.0 billion in 2024—posted a second consecutive year of decline, falling 4.9% in 2024 and recovering only modestly with an estimated 2.0% growth in 2025. The headline, however, obscures more than what it reveals: the weakness is overwhelmingly a China story. Excluding China's estimated 32.3% contraction in 2025, the underlying regional picture is considerably stronger, with Japan, South Korea, and the broader Asian market absorbing displaced trade flows at a healthy pace. Our forecast reflects this dynamic: exports to Asia are projected to grow 7.2% in 2026 and average 5–6% annually through 2027–2028, as the China drag fades and demand from allied economies strengthens.

USMCA partners—Mexico and Canada—follow a similar pattern of near-term softness giving way to recovery. After modest declines in 2023 and 2024, exports to the region are estimated to grow 4.9% in 2025 and accelerate to 7.9% in 2026, as nearshoring momentum builds and the USMCA renegotiation—whatever its ultimate shape—reinforces the underlying structural foundation of integrated North American supply chains.

Exports to Latin America have surprised to the upside over the past two years, rising 18.4% in 2024 and an estimated 12.9% in 2025—the strongest two-year performance of any region. This reflects a broadening of LA's export relationships across the continent, supported in part by trade

agreements signed or expanded just last year, which have opened new channels for the technology, aerospace, and pharmaceutical exports that define the MSA's base. Growth is expected to moderate to 6.8% in 2026 and to roughly 5% annually thereafter—still a solid pace.

Exports to the European Union—the LA MSA's third-largest trading region—are another bright spot, growing 3.6% in 2024 and accelerating to an estimated 9.9% in 2025, the strongest single-year performance among major regions. This reflects two key dynamics. First, despite a more strained political relationship with the current administration, Europe has moved closer to the U.S. economic orbit, particularly on energy. While LA is not a major energy exporter, petroleum and coal products ranked as the region's fourth-largest export category last year. Second, Europe's rising demand for defense, aerospace, and advanced technology goods—sectors where LA is well positioned—has been reinforced by increased investment across the continent given rising geopolitical risks. Export growth to the EU is expected to moderate to 3.4% in 2026 before stabilizing in the 4%–6% range through 2027–2028.

Africa, while still a relatively modest destination in volume terms at $475 million in 2024, posted strong growth of 16.7% that year and an estimated 9.4% in 2025, extending a multi-year trend of expanding engagement. Growth is expected to remain positive over the forecast horizon, reflecting the continued broadening of U.S.–Africa trade ties and rising demand for the infrastructure, technology, and agricultural exports that flow through the LA gateway.

Table F3
Los Angeles MSA Exports by Region
(millions of dollars)

Year	Africa	Asia	European Union	USMCA	South America
1999	266	14,615	7,736	9,910	1,099
2000	233	16,295	8,437	12,145	1,054
2001	238	13,047	7,293	11,128	1,012
2002	238	12,362	6,195	10,257	722
2003	267	14,203	7,054	10,267	753
2004	352	15,249	7,351	11,570	973
2005	406	17,684	7,827	12,512	1,221
2006	520	19,508	8,049	14,742	1,477
2007	456	21,982	9,401	15,430	1,798
2008	617	22,727	10,226	17,191	2,434
2009	613	19,212	8,188	16,062	1,806
2010	511	22,803	8,234	22,266	2,274
2011	525	26,630	9,429	26,311	2,912
2012	641	25,169	9,771	27,244	3,055
2013	511	25,550	10,417	27,702	3,123
2014	432	29,763	11,122	25,096	3,392
2015	388	25,732	9,978	18,710	2,413
2016	421	26,857	10,316	17,002	2,118
2017	314	27,293	11,224	18,466	2,155
2018	401	27,528	10,907	19,626	2,021
2019	375	26,640	11,152	16,839	1,794
2020	322	20,913	9,279	14,954	1,420
2021	399	24,005	10,675	17,774	1,771
2022	390	25,998	7,911	18,114	2,426
2023	407	25,294	7,968	17,571	2,143
2024	475	24,044	8,256	17,090	2,538
2025	519	24,526	9,072	17,923	2,866
			Forecasts		
2026	566	26,287	9,383	19,335	3,061
2027	575	27,911	9,929	20,488	3,242
2028	602	29,381	10,370	21,355	3,385

Source: *Woods Center, California State University Fullerton and International Trade Administration*

F.4 Los Angeles MSA Merchandise Exports by Sector

The latest sectoral breakdown for the Los Angeles metro area is available only through 2024. That year marked a second consecutive decline in export volumes, with shipments falling 1.1% as weakness broadened across most major sectors. The region's two dominant export industries in 2024—Transportation Equipment and Computer and Electronic Products—each accounted for roughly one-sixth of total merchandise exports, at $9.2 billion and $10.4 billion, respectively. Transportation Equipment contracted sharply, down 9.5% following a strong 2023, continuing a long-run erosion from its 2005 peak share of 23.4% to just 15.7% today (see Figure F7 and Table F4). By contrast, Computer and Electronic Products rebounded in 2024, growing 6.5%

after two consecutive years of decline, lifting its share to 17.7% and overtaking Transportation Equipment as the region's largest export sector—a notable shift given that the two sectors together once accounted for nearly half of all exports in 2005.

Elsewhere, export performance was broadly weak in 2024. Miscellaneous Manufacturing, the third-largest sector at 8.5% of exports, fell 14%, while Food Manufacturing held its 6.8% share despite soft global demand. Chemical exports in 2024 declined 4.1% for a second straight year. A few pockets of strength stood out: Electrical Equipment surged nearly 20%, its strongest showing in four years, and Fabricated Metal Products grew 7.4%, extending its run as the only sector to post gains in every year since 2021. Apparel, meanwhile, continued its long structural decline, contracting 13.3% and shrinking to just 2.1% of total exports.

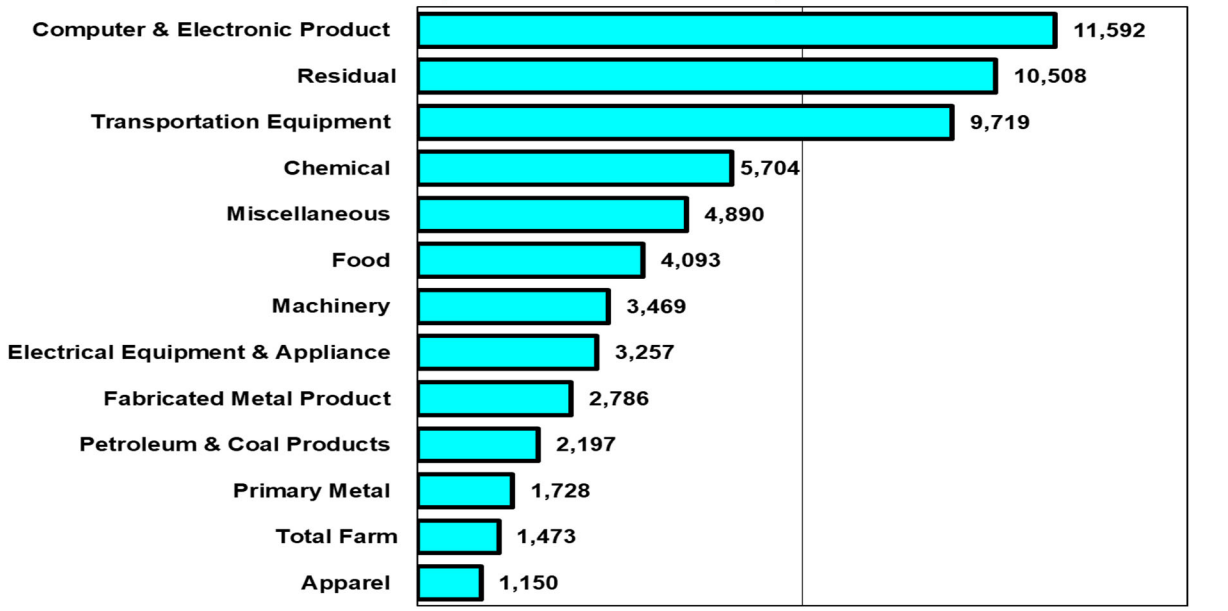
While official data for 2025 are not yet available, our estimates point to a more nuanced picture than a simple rebound in overall export volumes. Beneath the 6.2% headline growth, the sectoral pattern likely reflects a broader reshuffling of Los Angeles' export base, driven by tariff-induced trade diversion, commodity market distortions, and the early stages of a global realignment in manufacturing and technology supply chains.

Computer and Electronic Products is expected to have led the 2025 recovery, with growth of roughly 11.3%, extending its position as the region's largest export sector with a share near 18.5%. This strength likely reflects sustained demand tied to aerospace electronics, defense, and the broader AI-driven investment cycle reshaping global capital spending. Transportation Equipment, by contrast, posted a more modest gain of 4.9%, leaving its share broadly unchanged at around 15.5%, supported by steady aerospace demand even as uncertainty surrounding USMCA and retaliatory trade actions weighed on the sector's outlook. Chemicals are also expected to have performed well, growing about 8.8% and edging their share up to 9.1%, while Fabricated Metal Products likely remained positive at 3.6%, consistent with rising defense-related demand.

Primary Metal Manufacturing is estimated to have recorded the strongest headline growth—around 17.7%—though this figure should be interpreted cautiously. Much of the increase reflects commodity price effects and distortions in copper and gold trade flows, as also observed at the national level, rather than a meaningful expansion in local production. Elsewhere, the picture is weaker: Miscellaneous Manufacturing is estimated to have remained in contraction at -2.5%, Machinery is expected to have slipped after several years of gains, and Apparel likely extended its long structural decline, falling 7.4% and shrinking to just 1.8% of total exports.

Agricultural exports likely bore the most direct impact of the deteriorating U.S.–China trade relationship. After a modest recovery in 2024, farm exports are estimated to have declined by 4.7% in 2025, as China's retaliatory tariffs redirected demand toward alternative suppliers. For California's Pacific Rim–oriented exporters, the effects were particularly acute—serving as a reminder that in a trade war, export sectors absorb as much of the shock as import-competing industries.

Figure F7
Los Angeles MSA Exports by Sector
(millions of dollars, 2025)



Source: *Woods Center California State University Fullerton and International Trade*

Looking ahead, LA's export base is projected to sustain moderate growth through 2028, averaging in the low-to-mid single digits annually as initial tariff-driven distortions fade and global trade patterns stabilize. Computer and Electronic Products is expected to remain the primary engine of growth, with its share rising toward 22% by 2028, supported by AI infrastructure investment, defense electronics demand, and the region's deep aerospace supply chain. Growth, however, is likely to moderate as the front-loaded phase of the AI investment cycle matures.

Transportation Equipment is projected to retain its position as the second-largest export sector, posting steady—if unspectacular—gains supported by commercial aerospace and USMCA-linked trade flows. Fabricated Metal Products and Electrical Equipment are both expected to expand consistently throughout the forecast horizon, benefiting from defense spending, grid modernization, and electrification investment that are structural rather than cyclical in nature. Chemical exports are projected to grow modestly, maintaining a share of roughly 8.5%.

At the other end of the spectrum, Apparel's long structural decline shows no sign of reversal. Its share is expected to fall further from 1.8% to around 1.4% by 2028, as LA's garment export base continues to cede ground to lower-cost producers. Agricultural exports face a similarly uncertain outlook, heavily contingent on the trajectory of U.S.–China trade relations and whether Chinese buyers return to U.S. suppliers or continue shifting toward alternative sources.

On balance, the outlook points to a gradual concentration of the region's export base in advanced manufacturing and technology-adjacent sectors, with structural winners—particularly aerospace electronics, defense fabrication, and electrification equipment—offsetting the continued erosion of more labor-intensive and commodity-sensitive industries.

Table F4
Los Angeles MSA Exports by Sector
(millions of dollars)

Year	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1998	7,911	8,873	1,542	1,640	1,836	470	1,091
1999	7,145	11,038	1,629	1,579	1,933	453	1,101
2000	6,689	13,725	1,826	1,923	3,116	610	1,232
2001	5,744	11,153	1,615	1,828	2,390	675	1,229
2002	4,976	9,657	1,633	1,805	1,962	544	1,312
2003	6,802	8,902	2,087	2,354	2,133	556	1,511
2004	8,314	9,740	2,116	2,515	2,343	575	1,495
2005	10,273	10,233	2,628	2,691	2,800	939	1,649
2006	10,049	11,714	3,119	3,056	2,895	1,038	1,864
2007	11,917	11,761	3,594	3,652	3,141	1,494	2,088
2008	13,465	11,653	4,186	4,068	3,638	3,141	2,552
2009	10,566	11,965	3,910	3,698	2,892	1,953	2,312
2010	11,064	17,946	4,325	4,268	3,208	2,094	2,911
2011	12,215	21,160	5,117	5,046	3,554	3,372	3,590
2012	14,109	21,561	5,662	4,954	3,707	2,790	3,600
2013	15,505	21,793	5,120	5,134	3,584	2,499	3,336
2014	15,305	18,562	5,396	5,635	3,432	2,843	3,449
2015	11,780	12,728	5,172	5,338	3,254	1,552	3,148
2016	12,776	11,825	6,007	4,807	2,833	1,117	3,455
2017	13,142	11,676	5,806	4,527	2,824	1,617	3,681
2018	11,903	12,099	6,556	4,553	2,868	2,300	3,717
2019	11,254	10,240	6,996	4,646	2,808	1,513	3,886
2020	7,426	10,103	4,053	4,542	2,307	915	3,961
2021	7,685	11,256	4,500	5,635	2,715	1,547	4,662
2022	8,710	10,070	5,578	5,983	3,018	2,967	4,904
2023	10,231	9,777	5,830	5,471	3,171	2,368	3,878
2024	9,262	10,414	5,015	5,244	3,381	2,303	3,986
2025	9,719	11,592	4,890	5,704	3,469	2,197	4,093
			Forecast				
2026	10,452	13,427	5,201	5,990	3,690	2,355	4,165
2027	11,101	14,779	5,426	6,120	3,804	2,423	4,293
2028	11,732	15,973	5,673	6,296	3,930	2,463	4,426

Los Angeles MSA Exports by Sector (continued)

Year	Fabricated Metal Product	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export
1998	1,098	1,037	837	536	607	8,192	35,669
1999	962	1,056	825	431	439	8,782	37,372
2000	1,065	1,454	949	572	598	8,815	42,573
2001	1,050	1,270	979	560	549	7,497	36,538
2002	1,041	1,156	977	487	497	7,277	33,324
2003	1,192	1,130	893	814	554	7,797	36,725
2004	1,307	1,309	892	859	621	7,193	39,279
2005	1,535	1,395	1,052	987	744	6,886	43,814
2006	1,791	1,706	1,092	1,061	878	8,454	48,718
2007	1,818	1,799	1,074	1,082	922	10,091	54,433
2008	1,764	1,640	1,199	1,159	1,081	10,438	59,986
2009	1,544	1,375	1,208	1,055	829	8,222	51,528
2010	1,768	1,519	1,349	1,031	1,012	9,673	62,168
2011	1,762	1,671	1,383	1,367	1,259	11,191	72,689
2012	1,839	1,825	1,433	1,447	1,344	10,736	75,008
2013	2,079	1,943	1,436	1,552	1,482	10,844	76,306
2014	2,039	2,530	1,507	1,503	1,577	11,692	75,471
2015	1,944	2,492	1,449	1,330	1,431	10,140	61,759
2016	1,885	2,370	1,225	1,597	1,906	9,441	61,246
2017	2,011	2,549	1,260	1,528	2,442	10,689	63,753
2018	2,070	2,544	1,456	1,529	1,916	11,304	64,815
2019	2,136	2,554	1,339	1,642	1,636	10,390	61,041
2020	1,632	1,995	1,053	1,698	1,092	9,409	50,185
2021	1,789	2,183	1,645	1,731	1,392	11,849	58,588
2022	2,039	2,471	1,839	1,581	1,282	10,536	60,980
2023	2,504	2,629	1,433	1,519	1,408	9,341	59,562
2024	2,691	3,148	1,242	1,546	1,468	9,206	58,906
2025	2,786	3,257	1,150	1,473	1,728	10,508	62,566
				Forecast			
2026	3,047	3,492	1,162	1,483	1,829	10,255	66,549
2027	3,274	3,694	1,060	1,547	1,929	9,981	69,431
2028	3,504	3,901	982	1,598	2,024	9,510	72,012

Source: Woods Center, California State University Fullerton and International Trade Administration

G. ORANGE COUNTY

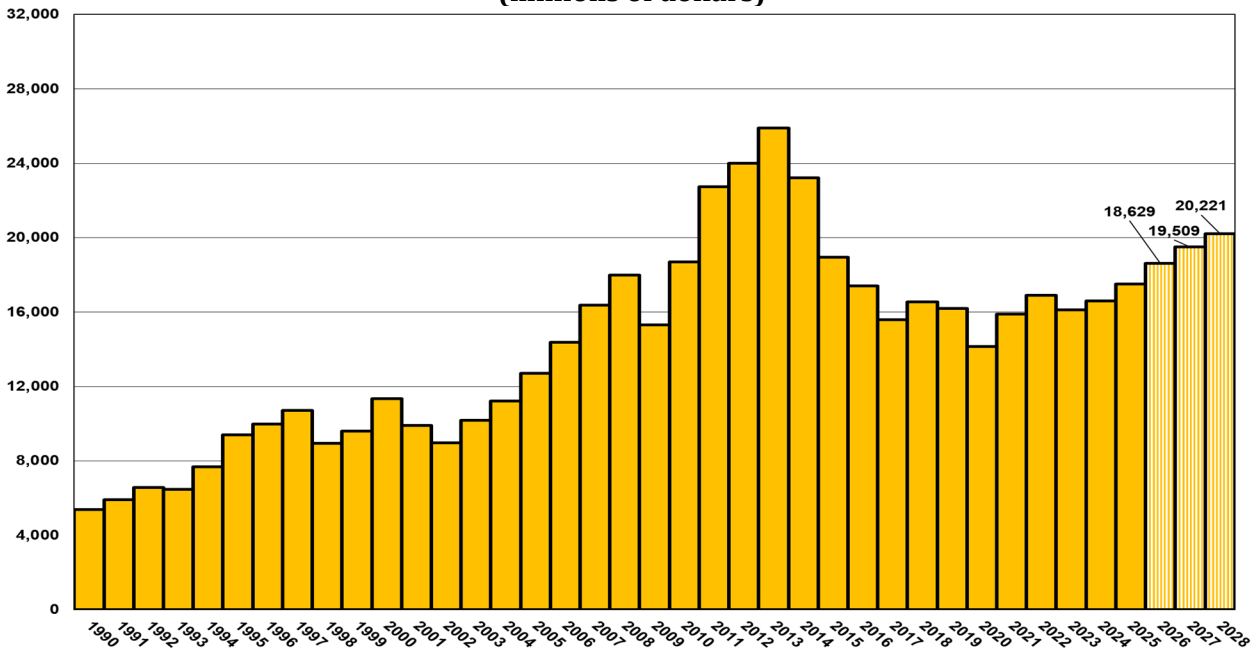
While LA's export economy is dominated by port logistics and entertainment IP, Orange County stands out as one of the region's true goods-producing export hubs, anchored by two globally competitive clusters: medical devices and semiconductors. The county employs more than 65,000 workers across over 2,000 establishments in the life sciences and biotechnology sector and is widely recognized as the "Medical Device Capital of the World," with more than 20,000 employees in that field alone.

This cluster—concentrated in Irvine, Aliso Viejo, and Lake Forest—produces high-value, relatively tariff-resistant exports, including cardiovascular devices, orthopedics, diagnostics, and surgical equipment, with key markets in Japan, South Korea, and the European Union. On the semiconductor and electronics side, Broadcom's Irvine headquarters anchors a broader hardware ecosystem that is poised for significant growth in both employment and output. Aerospace and defense are also expanding rapidly: Anduril Industries in Costa Mesa alone raised $2.5 billion in venture capital in June 2025, signaling the emergence of a serious defense technology export base.

G. 1 Orange County Merchandise Exports

Orange County exports were estimated to have increased by 5.4% to $17.5 billion in 2025 following a meagre 2.9% growth in 2024 (see Figure G4 and Table G1). Exports from Orange County now exceed the pre-pandemic levels by $1.3 billion but still remain a staggering $8.4 billion below the 2013 peak of $25.9 billion. Orange County still fails to prioritize merchandise exports for over a decade.

Figure G1
OC Total Merchandise Exports
(millions of dollars)



Source: Woods Center, California State University Fullerton and International Trade Administration

Orange County is projected to see export growth of 6.5% in 2026, 4.7% in 2027, and 3.7% in 2028—rates that broadly track LA's but reflect a fundamentally different industrial base. The 2026 forecast of 6.5% is driven by continued global demand for medical devices and for the communications and networking chips produced by OC's semiconductor firms—demand closely tied to the buildout of AI infrastructure and rising global healthcare spending, two of the more durable growth drivers in international trade. Similar to LA, Orange County lacks exposure to energy exports and will therefore trail the national headline. But unlike LA, OC is exporting goods it actually produces—and that distinction makes its export growth structurally more robust.

Table G1
OC Total Merchandise Exports
(millions of dollars)

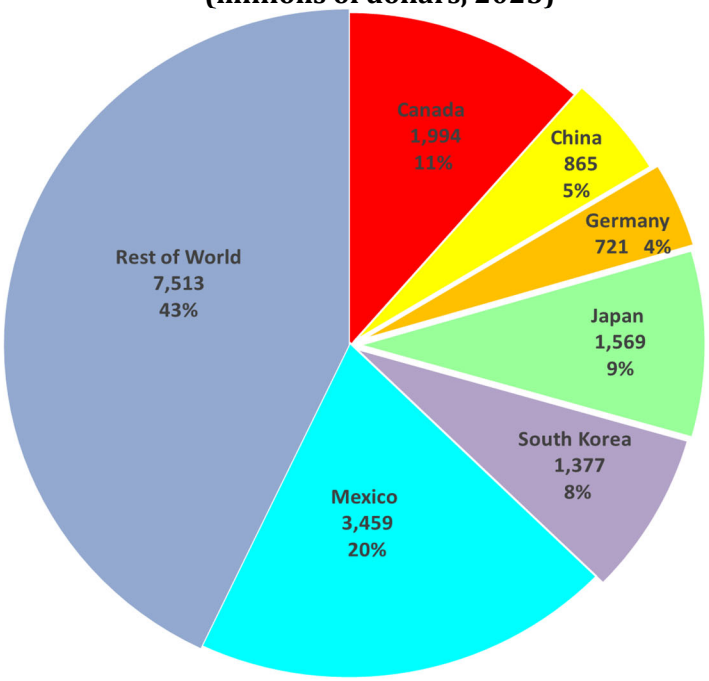
Year	Total Export Volume	Growth Rate
1990	5,385	n/a
1991	5,923	10.0%
1992	6,568	10.9%
1993	6,457	-1.7%
1994	7,688	19.1%
1995	9,401	22.3%
1996	9,973	6.1%
1997	10,717	7.5%
1998	8,932	-16.7%
1999	9,597	7.5%
2000	11,353	18.3%
2001	9,910	-12.7%
2002	8,973	-9.5%
2003	10,192	13.6%
2004	11,212	10.0%
2005	12,707	13.3%
2006	14,381	13.2%
2007	16,360	13.8%
2008	17,979	9.9%
2009	15,302	-14.9%
2010	18,694	22.2%
2011	22,746	21.7%
2012	23,995	5.5%
2013	25,902	7.9%
2014	23,208	-10.4%
2015	18,948	-18.4%
2016	17,418	-8.1%
2017	15,588	-10.5%
2018	16,554	6.2%
2019	16,205	-2.1%
2020	14,159	-12.6%
2021	15,888	12.2%
2022	16,891	6.3%
2023	16,126	-4.5%
2024	16,599	2.9%
2025	17,498	5.4%
	Forecast	
2026	18,629	6.5%
2027	19,509	4.7%
2028	20,221	3.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

G.2 Orange County Merchandise Exports by Country

Orange County's top export destinations were Mexico ($3.5 billion), Canada ($2.0 billion), Japan ($1.6 billion), South Korea ($1.4 billion), China ($0.9 billion), and Germany ($0.7 billion), as shown in Figure G5 and Table G2. Mexico remains the large destination for county exports with an estimated share in 2025 of 19.8%. The decline in exports to Canada reduced its share of total exports to 11.4%. The shares of total exports remained relatively constant, except for China, Japan (9.0%), South Korea (7.9%) and Germany (4.1%). The sharp estimated decline in exports to China caused its share of total exports to decline from 7.4% in 2024 to just 4.9% in 2025. Merchandise exports to five of the six major trading partners are estimated to remain above pre-pandemic levels except for China, even with the surge in tariffs. For China, exports in 2025 are estimated to decline by a massive 35.7% below the pre-pandemic level.

Figure G2
OC Merchandise Exports by Country
(millions of dollars, 2025)



Orange County's export profile—centered on medical devices, precision instruments, semiconductors, and advanced electronics—produces a trading partner trajectory that broadly mirrors Los Angeles, but with notable differences that reflect its more specialized, technology-intensive base.

The 2024 data present a mixed picture across partners. Germany was the standout performer, with exports from the county growing by 6.5% to $675 million, while Japan posted a modest 1.5% gain to $1.5 billion. South Korea and Mexico were broadly flat, declining 3.0% and 0.6%,

respectively, while exports to Canada slipped 4.5% to $1.9 billion. China continued its multi-year retreat, contracting 6.5% to $1.2 billion—its third consecutive year of decline—as the bilateral relationship weakened further. By contrast, the rest-of-world category was a clear bright spot, expanding 10.4% to $6.9 billion and reflecting the continued broadening of Orange County's export ties across Southeast Asia, India, and other emerging markets.

The tariff-driven reshuffling of the global trade order in 2025 has left a marked imprint on Orange County's export destinations. The 2025 estimates confirm—and intensify—the trends already visible in 2024. China's exports are estimated to have contracted by 29.4%, the steepest decline among all partners and comparable in magnitude to the LA MSA, pushing it into a distant fourth place. The contrast with other partners is striking: Mexico is estimated to have grown 8.8%, South Korea 9.9%, Japan 6.3%, and Germany 6.7%, while the rest-of-world category expanded another 9.5%. This divergence is not coincidental—it reflects both the direct impact of tariffs on OC's technology exports to China and the simultaneous acceleration of trade diversion toward allied economies.

The 2026–2028 forecast extends these trends, albeit at a more measured pace than the sharp shifts seen last year. Exports to Japan, South Korea, and Germany are all projected to grow faster in Orange County than in Los Angeles, reflecting how closely OC's export mix matches demand in these markets. Japan and South Korea, in particular, are natural destinations for OC's semiconductor equipment, electromedical devices, and precision instruments, given their ongoing buildout of advanced chip fabrication and healthcare technology capacity. Both are expected to post annual growth in the 7%–8% range through 2027, with South Korea reaching 8.3% that year. Germany also features more prominently in the OC outlook, with projected growth of 9.1% in 2026, driven by strong demand for high-value medical devices and precision manufacturing equipment that closely match OC's specialized export base.

Exports to Mexico and Canada are likewise expected to grow at a robust clip, supported by the same nearshoring and USMCA dynamics discussed in the LA context. Mexico is projected to grow 8.8% in 2025 and 6.8% in 2026, while Canada rebounds from its 2024–2025 softness, posting growth of 4.1% and 5.9% in 2026 and 2027. China stabilizes in the outer forecast years—contracting a further 4.4% in 2026 before returning to modest growth of 3.5% and 3.7% in 2027 and 2028—but remains a marginal presence, with projected export volumes well below its historical average.

By 2028, OC's export landscape reflects a clear reorientation: Japan and South Korea consolidated as the principal Pacific destinations, Germany somewhat more prominent than in the broader LA picture, North American partners providing steady growth underpinned by supply chain integration, and China reduced to a fraction of its former role. The pattern mirrors LA — but the high-tech and medical device skew of OC's export base makes the shift toward allied technology economies both more pronounced and more structurally grounded.

By 2028, Orange County's export landscape reflects a clear reorientation: Japan and South Korea are expected to have consolidated their positions as the principal Pacific destinations, Germany is likely to play a more prominent role than in the broader LA picture, and North American trading partners will continue to deliver steady growth underpinned by supply chain integration. China, while remaining a top-six partner, is projected to rank fifth, with export volumes roughly on par with Germany (the 6th ranked trading partner). The pattern mirrors LA's—but OC's concentration in high-tech and medical devices makes the shift toward allied technology economies both more pronounced and likely more enduring.

Table G2
OC Merchandise Exports by Country
(millions of dollars)

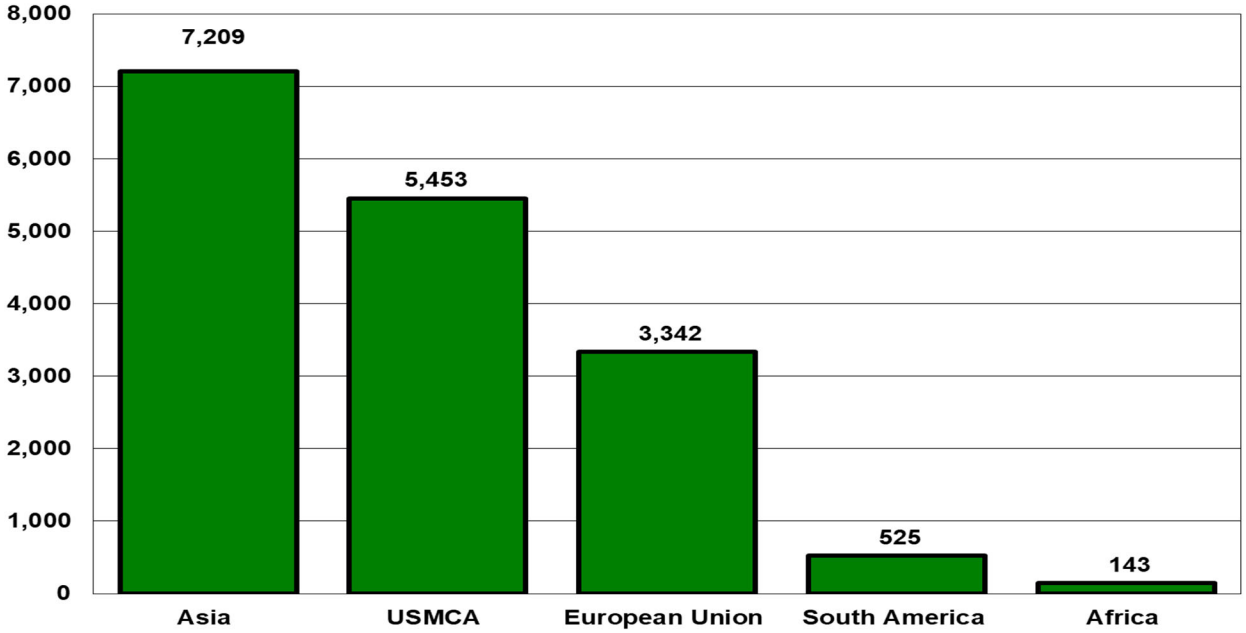
Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
1999	1,496	264	188	1,448	481	1,484	4,237	9,597
2000	1,657	368	210	1,867	639	1,726	4,886	11,353
2001	1,452	515	214	1,758	505	1,701	3,765	9,910
2002	1,212	508	209	1,237	445	1,663	3,699	8,973
2003	1,403	666	199	1,331	494	1,568	4,530	10,192
2004	1,675	909	224	1,630	654	1,785	4,335	11,212
2005	1,945	1,110	255	1,757	734	1,860	5,047	12,707
2006	2,146	1,578	323	1,803	802	2,443	5,286	14,381
2007	2,838	1,921	357	1,878	1,009	2,098	6,258	16,360
2008	2,957	1,915	524	1,941	1,099	2,541	7,001	17,979
2009	2,264	1,577	410	1,604	856	2,839	5,750	15,302
2010	2,601	2,099	471	1,793	980	4,583	6,168	18,694
2011	2,931	2,712	570	2,115	1,044	6,005	7,369	22,746
2012	3,111	2,531	557	2,086	1,079	6,408	8,223	23,995
2013	3,059	2,705	748	2,107	1,176	7,166	8,941	25,902
2014	2,763	2,418	631	1,868	1,054	5,640	8,833	23,208
2015	2,529	2,089	585	1,571	978	3,709	7,486	18,948
2016	2,215	1,713	599	1,595	899	3,074	7,323	17,418
2017	1,935	1,569	605	1,285	846	2,787	6,560	15,588
2018	2,042	1,541	699	1,477	910	3,114	6,770	16,554
2019	1,981	1,346	712	1,475	965	2,601	7,125	16,205
2020	1,778	1,205	790	1,263	1,027	2,581	5,515	14,159
2021	1,922	1,386	975	1,423	1,146	3,020	6,016	15,888
2022	2,068	1,473	603	1,542	1,336	3,312	6,689	16,891
2023	2,020	1,311	634	1,454	1,290	3,200	6,217	16,126
2024	1,928	1,225	675	1,477	1,252	3,180	6,862	16,599
2025	1,994	865	721	1,569	1,377	3,459	7,513	17,498
				Forecast				
2026	2,076	827	786	1,691	1,483	3,694	8,071	18,629
2027	2,198	856	852	1,808	1,606	3,868	8,320	19,509
2028	2,283	887	887	1,896	1,715	4,046	8,507	20,221

Source: *Woods Center, California State University Fullerton & International Trade Administration*

G.3 Orange County Merchandise Exports by Region

Orange County's top export regions in 2025 were Asia ($7.2 billion, 41.2% of total exports), USMCA partners Mexico and Canada ($5.5 billion, 31.2%), and the European Union ($3.3 billion, 19.1%) (see Figure G6 and Table G3). Exports posted a small 1.0% increase to Asia with a strong estimated 9.4% increase to the European Union.

Figure G3
OC Merchandise Exports by Region
(millions of dollars, 2025)



Source: Woods Center California State University Fullerton

Table G3
OC Exports by Region
(millions of dollars)

Year	Africa	Asia	European Union	USMCA	South America
1999	71	3,852	1,979	2,980	294
2000	65	4,697	2,383	3,384	294
2001	67	3,909	2,070	3,154	287
2002	67	3,670	1,804	2,875	203
2003	77	4,448	2,042	2,971	198
2004	105	4,810	2,203	3,460	304
2005	124	5,392	2,387	3,805	372
2006	162	6,090	2,513	4,589	461
2007	146	7,058	3,018	4,936	577
2008	198	7,299	3,284	5,498	782
2009	196	6,133	2,614	5,104	577
2010	166	7,396	2,671	7,184	738
2011	179	9,099	3,222	8,936	995
2012	225	8,853	3,437	9,519	1,075
2013	190	9,496	3,872	10,225	1,161
2014	145	9,190	3,637	8,403	1,143
2015	130	7,977	3,051	6,239	810
2016	138	7,826	3,084	5,289	658
2017	80	6,980	2,871	4,723	551
2018	105	7,233	2,866	5,157	531
2019	102	7,248	3,034	4,582	488
2020	94	6,096	2,705	4,359	414
2021	102	6,963	2,920	4,943	484
2022	109	7,392	3,040	5,380	510
2023	111	6,967	2,903	5,220	460
2024	128	7,138	3,054	5,108	465
2025	143	7,209	3,342	5,453	525
			Forecasts		
2026	153	7,675	3,577	5,770	596
2027	162	8,116	3,746	6,067	628
2028	168	8,331	3,923	6,329	655

Source: *Woods Center, California State University Fullerton*

Orange County's regional export pattern broadly mirrors Los Angeles, but is shaped by its more specialized base in medical devices, precision instruments, and advanced electronics. Asia remains by far the dominant regional destination, accounting for roughly 43% of Orange County exports in 2024—a share that remains broadly stable over the forecast horizon. As with LA, however, the headline understates the underlying strength for Asia: modest growth of 2.5% in 2024 and an estimated 1.0% in 2025 masks a clear divergence between a declining China and expanding demand from Japan, South Korea, and the broader Asian market. Our forecast points to a recovery

to Asia to 6.5% in 2026, moderating to 5.7% and 2.7% in 2027 and 2028, as the China drag fades and demand from allied economies—particularly for OC's medical devices and semiconductor equipment—continues to strengthen.

USMCA partners, accounting for roughly 31% of Orange County exports in 2024, follow a trajectory similar to that of LA. After two years of modest declines, exports to the region are estimated to rebound by 6.8% in 2025 and sustain solid growth of 4%–6% annually through the forecast period, supported by nearshoring momentum and the depth of North American supply chain integration.

The European Union stands out as a relative bright spot, growing 5.2% in 2024 and accelerating to an estimated 9.4% in 2025. Growth to the EU is projected at 7.0% in 2026 before settling into a 4%–5% range thereafter. At roughly 18% of Orange County exports, Europe is an important destination, with demand for medical devices, precision instruments, and aerospace components closely matching OC's export profile. In

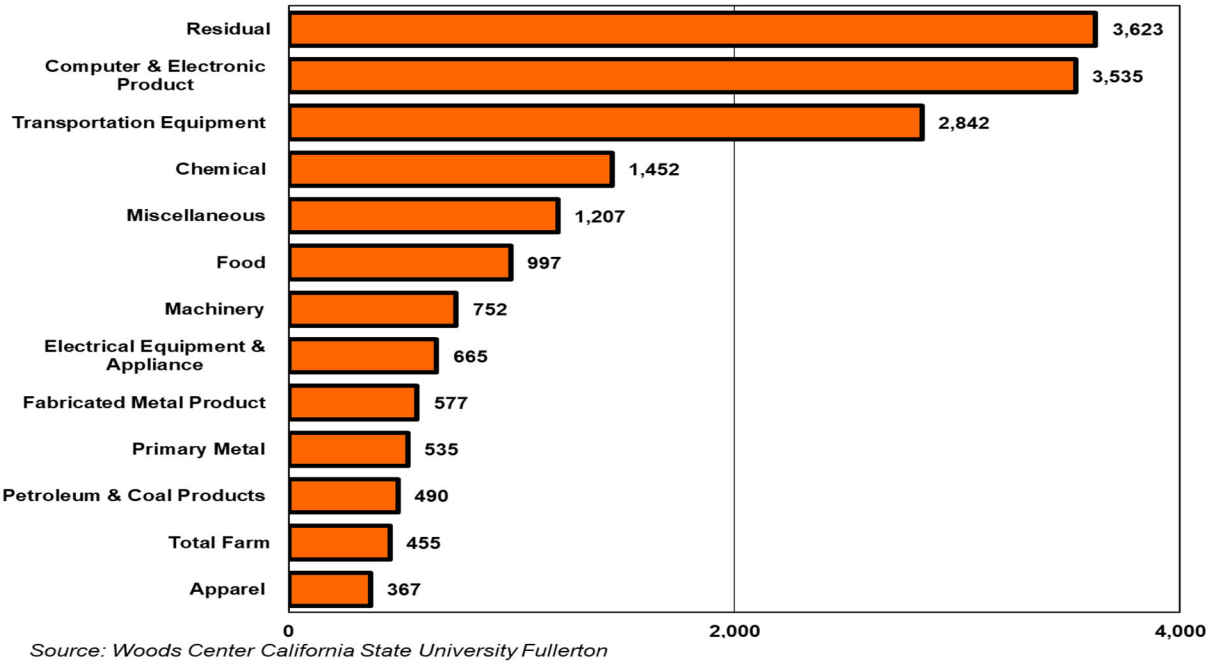
Exports to South America are the standout performer of the forecast period, with growth estimated at 12.9% in 2025 and accelerating to 13.6% in 2026 before moderating. While absolute volumes remain modest, the trajectory reflects both the expansion of U.S. trade ties across Latin America and rising demand for the technology and healthcare exports that define Orange County's base. Africa shows a similar pattern, posting strong growth of 14.9% in 2024 and 12.3% in 2025, though it remains a relatively small share of overall exports.

G.4 Orange County Merchandise Exports by Sector

Estimated sectoral data for 2025 suggest a broadening recovery across Orange County's export base, though the picture remains uneven. Computer and Electronic Products again led the way, growing 12.2% and extending its position as the region's largest export sector, supported by AI-related and defense electronics demand. Transportation Equipment rebounded to 4.3% after contracting 6.7% in 2024, benefiting from stable aerospace demand. Chemicals also performed well, rising 7.7%, while Primary Metal Manufacturing posted the strongest headline growth at 16.5%—though, as in Los Angeles, this largely reflects commodity price distortions at the national level rather than a meaningful increase in local production.

Elsewhere, performance was weaker. Petroleum and Coal contracted 5.8%, Miscellaneous Manufacturing was essentially flat, and Electrical Equipment edged down slightly. Apparel declined 4.9%, extending its long structural retreat. Agricultural exports fell 3.5%, pressured by China's retaliatory tariffs, which redirected demand away from U.S. suppliers—a headwind felt acutely across California's Pacific Rim–oriented farm export base.

Figure G4
OC Merchandise Exports by Sector
(millions of dollars, 2025)



Source: Woods Center California State University Fullerton

Over the forecast horizon, Orange County's export trajectory is projected to modestly outpace Los Angeles through 2028, reflecting its heavier concentration in defense electronics and aerospace—sectors poised to benefit from rising global security spending and the ongoing AI infrastructure buildout, which should remain intact irrespective of broader trade headwinds. Computer and Electronic Products is expected to deepen its dominance, with its share rising toward 22% by 2028 as OC's defense contractor base—anchored in aerospace and communications electronics—continues to see strong demand both domestically and among allied nations ramping up defense procurement.

Transportation Equipment is expected to post steady gains, holding its share around 16% as commercial aerospace orders remain firm. Fabricated Metal Products should also prove to be a consistent performer at around 3.5%, benefiting from the same defense supply chain dynamics. Following two soft years, Electrical Equipment is expected to gradually recover as grid modernization and electrification investment filter through to the region's industrial base for a share of around 3.7%.

By contrast, the outlook is less favorable for the more traditional sectors. Apparel's decline remains structural, while agricultural exports continue to hinge on the trajectory of U.S.–China trade relations. Petroleum and Coal face a similarly challenging path given California's regulatory environment and the region's limited refining footprint.

On balance, Orange County's export base appears better positioned than Los Angeles to weather ongoing global trade turbulence, given its tilt toward sectors where demand is driven by security concerns and technological advances.

Table G4
OC Merchandise Exports by Sector
(millions of dollars)

Year	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1998	1,737	2,474	383	391	470	120	258
1999	1,914	2,877	408	405	466	124	276
2000	2,097	3,440	481	499	754	171	318
2001	1,557	3,054	426	445	664	163	295
2002	1,383	2,526	429	377	588	157	274
2003	1,669	2,993	469	429	613	152	320
2004	1,882	3,022	491	520	751	175	417
2005	2,378	3,347	598	694	867	229	464
2006	2,826	3,610	829	888	870	318	546
2007	3,440	3,955	955	1,130	930	415	613
2008	3,788	4,387	1,149	1,156	1,061	440	748
2009	3,049	3,336	992	1,081	892	493	638
2010	4,061	4,764	1,220	1,274	1,000	585	875
2011	4,889	6,191	1,653	1,533	1,064	836	1,105
2012	5,157	6,696	1,739	1,555	1,178	807	1,171
2013	5,685	7,212	1,711	1,739	1,323	879	1,168
2014	5,155	6,069	1,519	1,703	1,104	846	1,058
2015	4,172	4,605	1,205	1,354	838	697	849
2016	3,908	3,924	1,083	1,273	766	593	772
2017	3,352	3,113	1,104	1,138	680	586	798
2018	3,305	3,467	1,334	1,265	721	607	819
2019	3,113	2,981	1,526	1,312	687	599	910
2020	2,191	2,837	1,038	1,166	635	411	962
2021	2,337	3,251	1,148	1,441	758	591	1,157
2022	2,659	3,389	1,364	1,462	777	594	1,134
2023	2,919	3,193	1,290	1,306	790	484	968
2024	2,724	3,151	1,213	1,349	742	520	982
2025	2,842	3,535	1,207	1,452	752	490	997
			Forecast				
2026	3,036	3,893	1,323	1,523	801	484	1,062
2027	3,219	4,175	1,405	1,595	839	507	1,137
2028	3,309	4,388	1,441	1,657	878	526	1,170

OC Merchandise Exports by Sector (continued)

Year	Fabricated Metal Product	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export
1998	276	257	212	115	156	2,085	8,932
1999	248	274	219	120	116	2,152	9,597
2000	276	387	252	151	157	2,372	11,353
2001	292	314	287	159	145	2,110	9,910
2002	246	308	276	167	133	2,109	8,973
2003	335	311	251	216	154	2,280	10,192
2004	389	373	257	227	173	2,534	11,212
2005	440	419	313	242	222	2,496	12,707
2006	524	494	329	284	260	2,605	14,381
2007	562	513	331	307	281	2,928	16,360
2008	539	505	351	348	328	3,179	17,979
2009	463	411	371	291	263	3,023	15,302
2010	549	470	400	371	329	2,798	18,694
2011	647	589	441	431	409	2,957	22,746
2012	665	624	477	441	409	3,077	23,995
2013	748	769	535	554	543	3,037	25,902
2014	637	811	482	471	507	2,846	23,208
2015	495	678	369	377	421	2,888	18,948
2016	470	643	343	343	413	2,886	17,418
2017	449	604	356	331	414	2,664	15,588
2018	503	671	391	376	406	2,689	16,554
2019	556	718	376	393	430	2,604	16,205
2020	461	624	340	438	436	2,620	14,159
2021	515	637	421	467	523	2,643	15,888
2022	571	739	424	486	519	2,773	16,891
2023	613	686	355	484	500	2,539	16,126
2024	570	675	386	472	459	3,356	16,599
2025	577	665	367	455	535	3,623	17,498
			Forecast				
2026	633	689	391	466	559	3,768	18,629
2027	680	722	410	468	582	3,771	19,509
2028	728	772	425	465	597	3,867	20,221

Source: Woods Center, California State University Fullerton

H. CONCLUSION

Merchandise exports are an important part of Southern California's economy. The increase in tariffs across the world as well as the major ongoing conflicts negatively impact many important trading partners, which is detrimental to regional export activity. In this context, the Woods Center at California State University, Fullerton provides a unique and detailed analysis of recent trends, forward-looking projections, and the broader implications of these tariffs on merchandise exports from Orange County and the greater Los Angeles-Long Beach-Anaheim MSA.

The International Trade Administration provides merchandise export data for Orange County and the broader MSA from 2012 to 2024, it includes only total volumes for the county, without any detail by country, region, or sector. For 2025, the U.S. Census Bureau offers total export figures—but only at the MSA level, and without breakdowns. This report fills that critical gap, delivering the only comprehensive source of historical data through 2025 and forward-looking forecasts through 2028 for exports from both Orange County and the Los Angeles-Long Beach-Anaheim MSA.

In 2025, there were increases in merchandise exports out of both Orange County and the broader Los Angeles-Long Beach-Anaheim Metropolitan Statistical Area despite the increases in tariffs and ongoing issues across the world. A major impact in Southern California was from the significant decline in merchandise exports to China in 2025 which is projected to decline in 2026 before recovering over the remainder of the forecast period. Merchandise exports to Canada also declined in 2025 and are projected to rebound over the forecast horizon. We project growth in exports for the remaining top trading partners.

Merchandise exports for the Los Angeles Metro area are projected to reach the following levels by the end of 2028 (end of forecast horizon):

- Total: $72.0 billion which is $4,3 billion below the record high of $76.3 billion in 2013.
- Six largest countries: Mexico ($13.6 billion, 18.9%), Canada ($7.7 billion, 10.7%), Japan ($5.7 billion, 8.0%), South Korea ($3.6 billion, 5.1%), China ($3.0 billion, 4.2%), Germany ($2.6 billion, 3.6%).
- Major regions: Asia ($29.4 billion), USMCA ($21.4 billion), European Union ($10.4 billion)
- Two largest exporting sectors: Computer & Electronic Products ($16.0 billion) and Transportation Equipment ($11.7 billion).

For Orange County merchandise exports are projected to reach the following levels by the end of 2028:

- Total: $20.2 billion which is $8.4 billion below the record high of $25.9 billion in 2013.
- Six largest countries: Mexico ($4.0 billion, 20.0%), Canada ($2.3 billion, 11.3%), Japan ($1.9 billion, 9.4%), South Korea ($1.7 billion, 8.5%), China ($0.9 billion, 4.4%), Germany ($0.9 billion, 4.4%).
- Major regions: Asia ($8.3 billion), USMCA ($6.3 billion), European Union ($3.9 billion).
- Two largest exporting sectors: Computer & Electronic Products ($4.3 billion) and Transportation Equipment ($3.3 billion).

I. APPENDIX
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A4. Export Regions
A5. Orange County Exports Detailed Statistics
A6. Los Angeles-Long Beach-Anaheim Exports Detailed Statistics

APPENDIX
A1. DATA SOURCES

"Annual Survey of Manufactures: Geographic Area Statistics," *U.S. Census Bureau*, http://www.census.gov/prod/www/abs/manu-asm-geo.

"California International Trade Register," *Database Publishing Company*, (1992), out-of-print.

"Census Bureau," www.census.gov.

"Current Establishment Survey," *Bureau of Labor Statistics, http://www.bls.gov*.

"Exchange Rates," Wharton Research Data Services database, http://wrds.wharton.upenn.edu, 2016-2025.

"Exports from U.S. Metropolitan Areas," *International Trade Administration*, http://www.trade.gov/mas/ian/Metro/index.html, 2016-date.

"Foreign Trade Statistics," *U.S. Census Bureau*, http://www.census.gov/foreign-trade.

"International Financial Statistics," International Monetary Fund, 1990-date, www.imfstatistics.org/imf/

"Labor Market Information," *State of California, Employment Development Department,* http://www.edd.ca.gov.

"Metro Business Patterns," *U.S. Census Bureau,* http://www.census.gov/econ/cbp/index.html.

"National Income and Products Account," *Bureau of Economic Analysis*, http://www.bea.gov.

"Orange County and Regional Economic Outlook," *Center for Economic Analysis and Forecasting*, *California State University Fullerton*, 1999-2025.

"Regional Multipliers," *Bureau of Economic Analysis*, http://www.bea.gov, 1997-2025.

"State and regional exports of merchandise," *International Trade Administration*, http://tse.export.gov, 2016-2023.

"State export data series," *WISERtrade*, http://www.wisertrade.org, 2012-2016.

"Statistical Abstract, Foreign Commerce & Aid," *U.S. Census Bureau*, http://www.census.gov/prod/www/abs/statab.htmlhttp://www.census.gov/foreign-trade.

"Trade Statistics," *International Trade Administration,* http://www.ita.doc.gov/, 2016-2025.

"U.S. merchandise exports," *International Trade Administration*, http://tse.export.gov, 2016-2025.

"U.S. District and Port Exports," *WISERtrade*, http://www.wisertrade.org, 2016.

"World Economic Outlook Database," *International Monetary Fund*, http://www.imf.org, 2016-2025.

APPENDIX
A2. EXPORT DATA

The following is a summary of the export data sources. Parts of the summary are cited directly from the respective data source.

National Trade Data

TradeStats Express, International Trade Administration, U.S. Department of Commerce

The International Trade Administration (ITA) of the U.S. Department of Commerce provides comprehensive trade data on merchandise exports for the nation. This data, available annually from 1989 to 2025, covers individual countries, trade/economic groups, and geographic regions, categorized by product type and industry. Export data is classified under three major systems:

- North American Industry Classification System (NAICS) (up to four-digit level)
- Harmonized System (HS) (at two- and four-digit levels)
- Standard International Trade Classification (SITC) (up to three-digit level)

These classifications allow for detailed analysis of U.S. trade flows, used extensively in this report.

State Export Data

TradeStats Express, International Trade Administration, U.S. Department of Commerce

State-level export data are available annually from 1999 through 2025, covering individual countries, trade/economic groups, and geographic regions by product type and industry. The data are classified under the North American Industry Classification System (NAICS), up to the three-digit level. The dataset captures Origin-of-Movement (OM) series, which tracks exports based on the state from which the merchandise begins its journey to the port of export. This differs from the earlier Exporter Location (EL) series (1993-2002), which recorded exports based on the exporter's zip code—often capturing company headquarters, wholesalers, brokers, and freight forwarders rather than direct linkages to production. While OM data do not directly indicate the state of production, they serve as the best available proxy, particularly for manufactured goods, where they may also reflect the state of consolidation or the location of brokers and wholesalers.

U.S. Metropolitan Areas Export Data

International Trade Administration, U.S. Department of Commerce

The U.S. Metro Area Export data is available annually from 2006 to 2024 and is updated semi-annually by the International Trade Administration. For 2025, total export volumes for major exporting metro areas, including the Los Angeles MSA, are available from the U.S. Census Bureau. The top five export product profiles for selected Metropolitan Statistical Areas (MSAs) are available from 2005 to 2024, while NAICS three-digit export data is available from 2008 to 2024, but only for the top 50 metropolitan areas. Additionally, export destination data for the top 50 trading partners is available for the top 10 MSAs from 2008 to 2024.

The metro area export series is derived by matching five-digit ZIP codes from U.S. export declarations with ZIP codes assigned to metro areas, using concordance files from the Census Bureau's Geography Division and the U.S. Postal Service. This dataset exclusively measures the dollar value of merchandise exports, and it does not include services. The data is presented only in nominal U.S. dollars, unadjusted for inflation or other factors. Metropolitan areas referenced in the 2005–2024 dataset are based on 2020 Census definitions.

The Metro Area export series is based on the origin of movement, determined by the ZIP code of the U.S. Principal Party of Interest (USPPI) of record. In 2004, the definition of the USPPI ZIP code — the party that receives the primary benefit (monetary or otherwise) —was revised to indicate the origin of movement of goods. Initially it did not necessarily represent the location of the USPPI. However, with

the increased adoption of electronic reporting in the Automated Export System (AES), the validity of ZIP code data has significantly improved since 2004. Despite these improvements, the USPPI of record does not always correspond to the producer of the merchandise. As a result, this dataset does not provide a fully comprehensive or reliable measure of the actual production origin of U.S. exports.

The current Metro Area Export data differs from an earlier series (1993–2002) produced by the U.S. International Trade Administration, which relied on the Exporter Location (EL) series collected by the Census Bureau from shipper's export declarations. With the introduction of the Automated Export System (AES) by U.S. Customs and the Census Bureau, the accuracy of the EL series became increasingly unreliable, leading to its discontinuation. As a result, metro-level export reporting ceased until the zip-based Origin of Movement (OM) series was introduced in 2005. Because the 2001 data are based on the Exporter Location series and the 2005 data follow the Origin of Movement series, the Census Bureau cautions that the two datasets are not directly comparable.

The OM zip-code series used to measure metropolitan exports differs from the OM data based on origin-state, which is used for state-level exports. The state-based OM series provides export statistics based on the state from which the merchandise began its journey, as recorded on the shipper's export declaration. In contrast, the OM zip-code series captures the origin of movement using the ZIP code of the U.S. Principal Party of Interest (USPPI). This zip-based methodology enables export tracking at the metropolitan level. Because of these differences, metro-level export data should only be compared to other sources using the OM zip-based series. It cannot be directly compared to state-level export data from sources like *TradeStats* and *USA Trade Online*, which report exports based on the state-level OM series.

Customs District Data

U.S. Census Bureau

Customs District and port data measure exports based on the location where goods physically leave the U.S., regardless of their point of origin within the country. This differs from metropolitan export data, which is based on the Origin of Movement (OM) series and attempts to trace exports back to their point of origin rather than the port of exit. Unlike port-based export data, which reflects shipments processed through specific Customs Districts, the OM-based metropolitan export data provides a closer approximation of where goods originate within the U.S., offering a more geographically meaningful measure of export activity.

APPENDIX

A3. METHODOLOGY

Estimation of Exports for the Los Angeles – Long Beach – Anaheim Region

Total export volume before year 2006 for the Los Angeles–Long Beach–Anaheim Region (LA-LB-SA) was extrapolated from regional, state, national and international trade trends as well as estimates from an econometric model. To estimate the historical data, regional, state, national and international merchandise exports volumes were used in conjunction with exchange rates, labor productivity in export industries, U.S. and foreign growth measured by real gross domestic product and exports by industry. Forecasts for year 2026 onwards are based on statistical and econometric modeling methodology.

Estimation of Orange County Exports

Orange County's total export volume was extrapolated from regional, state, national and international trade trends as well as estimates from an econometric model. An annual survey, the *California International Trade Register* from Database Publishing Company was also used to estimate historical export volume for Orange County using 401 companies involved in export activities from Orange County. However, this publication is no longer available. The original estimated exports for Orange County have been revised because the newly released 2005-2024 MSA export data has some new important differences concerning the various sectors and export-tracking based on zip-codes. To estimate the historical data, regional, state, national and international merchandise exports volumes were used in conjunction with exchange rates, labor productivity in export industries, and U.S. and foreign growth measured by real gross domestic product. Historical estimates for Orange County exports are also based on exports from the LA-LB-SA region because Orange County is part of the region. Forecasts are based on statistical and econometric modeling methodology.

APPENDIX
A4. EXPORT REGIONS

Africa

Algeria, Angola, Benin, Botswana, British Indian Ocean Territories, Burkina, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Brazzaville), Congo (Kinshasa), Cote d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, French Southern and Antarctic Lands, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Reunion, Rwanda, St. Helena, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Western Sahara, Zambia, Zimbabwe.

Asia

Afghanistan, Bangladesh, Bhutan, Brunei, Burma, Cambodia, China, East Timor, Hong Kong, India, Indonesia, Japan, Laos, Macau, Malaysia, Maldives, Mongolia, Nepal, North Korea, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam.

European Union

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Federal Republic of Germany, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

United States-Mexico-Canada Agreement (USMCA)

United States, Canada, Mexico

South America

Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guaina, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela

Source: *U.S. Census Bureau, Foreign Trade Statistics*

A5. LOS ANGELES–LONG BEACH -ANAHEIM EXPORTS

Table A1
Los Angeles MSA Exports by Country: Growth Rate

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World	Total Exports
2000	16.7%	53.7%	7.3%	35.8%	46.3%	28.7%	-0.2%	13.9%
2001	-13.9%	37.4%	0.1%	-7.4%	-22.2%	-3.1%	-23.3%	-14.2%
2002	-15.7%	-0.1%	-1.4%	-28.8%	-11.0%	-1.1%	-2.3%	-8.8%
2003	12.2%	26.9%	-7.5%	4.2%	7.7%	-8.7%	18.3%	10.2%
2004	15.5%	32.1%	8.6%	18.6%	28.0%	10.2%	-5.1%	7.0%
2005	14.2%	20.0%	11.9%	6.0%	10.3%	2.4%	14.4%	11.5%
2006	7.8%	38.9%	24.1%	0.2%	6.8%	28.3%	4.7%	11.2%
2007	28.7%	18.5%	7.3%	1.3%	22.4%	-16.4%	17.2%	11.7%
2008	4.2%	-0.3%	46.9%	3.4%	8.9%	21.1%	12.3%	10.2%
2009	-22.9%	-17.1%	-21.3%	-16.8%	-21.6%	12.5%	-16.3%	-14.1%
2010	13.1%	31.1%	13.0%	10.1%	12.7%	59.0%	8.7%	20.6%
2011	7.1%	22.7%	15.1%	12.0%	1.2%	24.5%	17.4%	16.9%
2012	3.2%	-9.3%	-5.1%	-4.1%	0.5%	3.7%	8.9%	3.2%
2013	-6.9%	1.2%	27.1%	-4.4%	3.2%	5.9%	1.6%	1.7%
2014	-0.4%	-1.5%	-7.0%	-2.2%	-1.2%	-13.2%	7.2%	-1.1%
2015	-8.1%	-13.2%	-6.9%	-15.6%	-6.9%	-34.0%	-15.8%	-18.2%
2016	-6.1%	-12.1%	9.7%	8.8%	-6.4%	-11.2%	5.7%	-0.8%
2017	6.3%	11.4%	22.9%	-1.9%	4.7%	10.3%	-0.2%	4.1%
2018	2.7%	-4.4%	12.5%	11.8%	10.7%	8.8%	-3.6%	1.7%
2019	-6.3%	-15.6%	-1.7%	-3.6%	11.5%	-19.4%	-0.7%	-5.8%
2020	-16.2%	-16.5%	3.6%	-20.1%	-28.2%	-7.4%	-22.3%	-17.8%
2021	13.9%	9.0%	30.0%	3.2%	19.6%	22.3%	17.5%	16.7%
2022	7.7%	20.1%	-45.5%	0.5%	0.9%	-1.8%	10.7%	4.1%
2023	-0.9%	-12.2%	4.7%	-7.7%	-6.7%	-4.4%	0.9%	-2.3%
2024	-6.4%	-8.2%	4.6%	8.6%	-3.2%	-0.1%	-0.5%	-1.1%
2025	-1.4%	-32.3%	10.2%	7.2%	8.3%	9.2%	12.4%	6.2%
				Forecasts				
2026	6.4%	-4.3%	5.1%	6.9%	8.3%	8.8%	6.3%	6.4%
2027	4.9%	2.2%	3.1%	6.2%	6.5%	6.6%	3.2%	4.3%
2028	1.4%	3.7%	2.5%	4.8%	5.3%	5.9%	3.2%	3.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A2
Los Angeles MSA Exports by Country: Shares of Total Volume

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
1999	13.6%	2.3%	1.9%	13.2%	4.2%	12.9%	51.9%
2000	14.0%	3.1%	1.8%	15.7%	5.4%	14.6%	45.5%
2001	14.0%	5.0%	2.1%	17.0%	4.9%	16.4%	40.6%
2002	13.0%	5.4%	2.2%	13.2%	4.8%	17.8%	43.5%
2003	13.2%	6.3%	1.9%	12.5%	4.6%	14.8%	46.7%
2004	14.3%	7.7%	1.9%	13.9%	5.6%	15.2%	41.5%
2005	14.6%	8.3%	1.9%	13.2%	5.5%	14.0%	42.5%
2006	14.2%	10.4%	2.1%	11.9%	5.3%	16.1%	40.0%
2007	16.3%	11.0%	2.0%	10.8%	5.8%	12.1%	42.0%
2008	15.4%	10.0%	2.7%	10.1%	5.7%	13.2%	42.8%
2009	13.8%	9.6%	2.5%	9.8%	5.2%	17.3%	41.7%
2010	13.0%	10.5%	2.3%	8.9%	4.9%	22.8%	37.5%
2011	11.9%	11.0%	2.3%	8.6%	4.2%	24.3%	37.7%
2012	11.9%	9.7%	2.1%	8.0%	4.1%	24.5%	39.8%
2013	10.9%	9.6%	2.7%	7.5%	4.2%	25.4%	39.8%
2014	10.9%	9.6%	2.5%	7.4%	4.2%	22.3%	43.1%
2015	12.3%	10.1%	2.8%	7.6%	4.7%	18.0%	44.3%
2016	11.6%	9.0%	3.1%	8.4%	4.5%	16.1%	47.3%
2017	11.9%	9.6%	3.7%	7.9%	4.5%	17.1%	45.3%
2018	12.0%	9.1%	4.1%	8.7%	4.9%	18.3%	43.0%
2019	11.9%	8.1%	4.3%	8.9%	5.8%	15.7%	45.3%
2020	12.2%	8.2%	5.4%	8.6%	5.1%	17.6%	42.9%
2021	11.9%	7.7%	6.0%	7.6%	5.2%	18.5%	43.1%
2022	12.3%	8.9%	3.1%	7.4%	5.0%	17.4%	45.9%
2023	12.4%	8.0%	3.4%	7.0%	4.8%	17.1%	47.4%
2024	11.8%	7.4%	3.6%	7.6%	4.7%	17.2%	47.7%
2025	10.9%	4.7%	3.7%	7.7%	4.8%	17.7%	50.4%
			Forecasts				
2026	10.9%	4.2%	3.7%	7.8%	4.9%	18.1%	50.4%
2027	11.0%	4.2%	3.6%	7.9%	5.0%	18.5%	49.8%
2028	10.7%	4.2%	3.6%	8.0%	5.1%	18.9%	49.6%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A3
Los Angeles MSA Exports by Region: Growth Rate

Year	Africa	Asia	European Union	USMCA	South America
2000	-12.3%	11.5%	9.1%	22.5%	-4.1%
2001	2.0%	-19.9%	-13.6%	-8.4%	-4.0%
2002	-0.1%	-5.2%	-15.1%	-7.8%	-28.6%
2003	12.3%	14.9%	13.9%	0.1%	4.2%
2004	32.0%	7.4%	4.2%	12.7%	29.2%
2005	15.2%	16.0%	6.5%	8.1%	25.5%
2006	28.1%	10.3%	2.8%	17.8%	21.0%
2007	-12.2%	12.7%	16.8%	4.7%	21.7%
2008	35.3%	3.4%	8.8%	11.4%	35.4%
2009	-0.7%	-15.5%	-19.9%	-6.6%	-25.8%
2010	-16.6%	18.7%	0.6%	38.6%	25.9%
2011	2.7%	16.8%	14.5%	18.2%	28.0%
2012	22.0%	-5.5%	3.6%	3.5%	4.9%
2013	-20.2%	1.5%	6.6%	1.7%	2.2%
2014	-15.5%	16.5%	6.8%	-9.4%	8.6%
2015	-10.1%	-13.5%	-10.3%	-25.4%	-28.9%
2016	8.3%	4.4%	3.4%	-9.1%	-12.2%
2017	-25.2%	1.6%	8.8%	8.6%	1.7%
2018	27.5%	0.9%	-2.8%	6.3%	-6.2%
2019	-6.3%	-3.2%	2.3%	-14.2%	-11.2%
2020	-14.3%	-21.5%	-16.8%	-11.2%	-20.9%
2021	24.2%	14.8%	15.0%	18.9%	24.7%
2022	-2.3%	8.3%	-25.9%	1.9%	37.0%
2023	4.3%	-2.7%	0.7%	-3.0%	-11.7%
2024	16.7%	-4.9%	3.6%	-2.7%	18.4%
2025	9.4%	2.0%	9.9%	4.9%	12.9%
			Forecasts		
2026	8.9%	7.2%	3.4%	7.9%	6.8%
2027	1.7%	6.2%	5.8%	6.0%	5.9%
2028	4.7%	5.3%	4.4%	4.2%	4.4%

Source: Woods Center, California State University Fullerton and International Trade Administration

Table A4
Los Angeles MSA Exports by Sector: Growth Rates

Industry	Transportation Equipment	Computer Electronic Product	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
1999	-9.7%	24.4%	5.6%	-3.7%	5.3%	-3.5%	0.9%
2000	-6.4%	24.3%	12.1%	21.8%	61.2%	34.6%	12.0%
2001	-14.1%	-18.7%	-11.6%	-5.0%	-23.3%	10.7%	-0.3%
2002	-13.4%	-13.4%	1.1%	-1.3%	-17.9%	-19.5%	6.8%
2003	36.7%	-7.8%	27.8%	30.4%	8.7%	2.3%	15.2%
2004	22.2%	9.4%	1.4%	6.9%	9.9%	3.4%	-1.1%
2005	23.6%	5.1%	24.2%	7.0%	19.5%	63.4%	10.3%
2006	-2.2%	14.5%	18.7%	13.5%	3.4%	10.5%	13.0%
2007	18.6%	0.4%	15.2%	19.5%	8.5%	43.9%	12.0%
2008	13.0%	-0.9%	16.5%	11.4%	15.8%	110.3%	22.3%
2009	-21.5%	2.7%	-6.6%	-9.1%	-20.5%	-37.8%	-9.4%
2010	4.7%	50.0%	10.6%	15.4%	10.9%	7.2%	25.9%
2011	10.4%	17.9%	18.3%	18.2%	10.8%	61.1%	23.3%
2012	15.5%	1.9%	10.6%	-1.8%	4.3%	-17.3%	0.3%
2013	9.9%	1.1%	-9.6%	3.6%	-3.3%	-10.4%	-7.3%
2014	-1.3%	-14.8%	5.4%	9.8%	-4.3%	13.8%	3.4%
2015	-23.0%	-31.4%	-4.1%	-5.3%	-5.2%	-45.4%	-8.7%
2016	8.5%	-7.1%	16.1%	-9.9%	-12.9%	-28.0%	9.8%
2017	2.9%	-1.3%	-3.3%	-5.8%	-0.3%	44.7%	6.5%
2018	-9.4%	3.6%	12.9%	0.6%	1.6%	42.2%	1.0%
2019	-5.5%	-15.4%	6.7%	2.0%	-2.1%	-34.2%	4.6%
2020	-34.0%	-1.3%	-42.1%	-2.2%	-17.9%	-39.5%	1.9%
2021	3.5%	11.4%	11.0%	24.1%	17.7%	68.9%	17.7%
2022	13.3%	-10.5%	24.0%	6.2%	11.2%	91.9%	5.2%
2023	17.5%	-2.9%	4.5%	-8.6%	5.1%	-20.2%	-20.9%
2024	-9.5%	6.5%	-14.0%	-4.1%	6.6%	-2.7%	2.8%
2025	4.9%	11.3%	-2.5%	8.8%	2.6%	-4.6%	2.7%
			Forecasts				
2026	7.5%	15.8%	6.4%	5.0%	6.4%	7.2%	1.7%
2027	6.2%	10.1%	4.3%	2.2%	3.1%	2.9%	3.1%
2028	5.7%	8.1%	4.5%	2.9%	3.3%	1.6%	3.1%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Los Angeles MSA Exports by Sector: Growth Rates (continued)

Industry	Fabricated Metal Product	Electrical Equipment Appliance	Apparel	Total Farm	Primary Metal	Other Sectors	Total Export Volume
1999	-12.4%	1.8%	-1.4%	-19.6%	-27.7%	7.2%	4.8%
2000	10.7%	37.6%	15.1%	32.8%	36.3%	0.4%	13.9%
2001	-1.4%	-12.7%	3.1%	-2.0%	-8.1%	-15.0%	-14.2%
2002	-0.9%	-8.9%	-0.2%	-13.0%	-9.5%	-2.9%	-8.8%
2003	14.5%	-2.3%	-8.5%	67.1%	11.4%	7.1%	10.2%
2004	9.7%	15.8%	-0.2%	5.5%	12.0%	-7.8%	7.0%
2005	17.4%	6.6%	18.0%	14.9%	19.9%	-4.3%	11.5%
2006	16.7%	22.3%	3.8%	7.4%	18.0%	22.8%	11.2%
2007	1.5%	5.4%	-1.7%	2.1%	4.9%	19.4%	11.7%
2008	-3.0%	-8.8%	11.6%	7.1%	17.3%	3.4%	10.2%
2009	-12.5%	-16.2%	0.8%	-9.0%	-23.3%	-21.2%	-14.1%
2010	14.5%	10.5%	11.6%	-2.2%	22.1%	17.6%	20.6%
2011	-0.3%	10.0%	2.6%	32.6%	24.4%	15.7%	16.9%
2012	4.4%	9.2%	3.6%	5.9%	6.7%	-4.1%	3.2%
2013	13.0%	6.4%	0.2%	7.2%	10.3%	1.0%	1.7%
2014	-1.9%	30.3%	4.9%	-3.2%	6.4%	7.8%	-1.1%
2015	-4.7%	-1.5%	-3.9%	-11.5%	-9.3%	-13.3%	-18.2%
2016	-3.0%	-4.9%	-15.5%	20.1%	33.2%	-6.9%	-0.8%
2017	6.7%	7.5%	2.9%	-4.3%	28.1%	13.2%	4.1%
2018	2.9%	-0.2%	15.6%	0.1%	-21.6%	5.8%	1.7%
2019	3.2%	0.4%	-8.0%	7.4%	-14.6%	-8.1%	-5.8%
2020	-23.6%	-21.9%	-21.3%	3.4%	-33.3%	-9.4%	-17.8%
2021	9.6%	9.4%	56.2%	2.0%	27.4%	25.9%	16.7%
2022	13.9%	13.2%	11.8%	-8.7%	-7.9%	-11.1%	4.1%
2023	22.8%	6.4%	-22.0%	-3.9%	9.9%	-11.3%	-2.3%
2024	7.4%	19.7%	-13.3%	1.8%	4.3%	-1.4%	-1.1%
2025	3.6%	3.5%	-7.4%	-4.7%	17.7%	14.1%	6.2%
			Forecasts				
2026	9.3%	7.2%	1.0%	0.7%	5.8%	-2.4%	6.4%
2027	7.5%	5.8%	-8.8%	4.3%	5.5%	-2.7%	4.3%
2028	7.0%	5.6%	-7.4%	3.3%	5.0%	-4.7%	3.7%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Table A5
Los Angeles MSA Exports by Sector: Shares of Total Volume

Industry	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal	Food
1998	22.2%	24.9%	4.3%	4.6%	5.1%	1.3%	3.1%
1999	19.1%	29.5%	4.4%	4.2%	5.2%	1.2%	2.9%
2000	15.7%	32.2%	4.3%	4.5%	7.3%	1.4%	2.9%
2001	15.7%	30.5%	4.4%	5.0%	6.5%	1.8%	3.4%
2002	14.9%	29.0%	4.9%	5.4%	5.9%	1.6%	3.9%
2003	18.5%	24.2%	5.7%	6.4%	5.8%	1.5%	4.1%
2004	21.2%	24.8%	5.4%	6.4%	6.0%	1.5%	3.8%
2005	23.4%	23.4%	6.0%	6.1%	6.4%	2.1%	3.8%
2006	20.6%	24.0%	6.4%	6.3%	5.9%	2.1%	3.8%
2007	21.9%	21.6%	6.6%	6.7%	5.8%	2.7%	3.8%
2008	22.4%	19.4%	7.0%	6.8%	6.1%	5.2%	4.3%
2009	20.5%	23.2%	7.6%	7.2%	5.6%	3.8%	4.5%
2010	17.8%	28.9%	7.0%	6.9%	5.2%	3.4%	4.7%
2011	16.8%	29.1%	7.0%	6.9%	4.9%	4.6%	4.9%
2012	18.8%	28.7%	7.5%	6.6%	4.9%	3.7%	4.8%
2013	20.3%	28.6%	6.7%	6.7%	4.7%	3.3%	4.4%
2014	20.3%	24.6%	7.1%	7.5%	4.5%	3.8%	4.6%
2015	19.1%	20.6%	8.4%	8.6%	5.3%	2.5%	5.1%
2016	20.9%	19.3%	9.8%	7.8%	4.6%	1.8%	5.6%
2017	20.6%	18.3%	9.1%	7.1%	4.4%	2.5%	5.8%
2018	18.4%	18.7%	10.1%	7.0%	4.4%	3.5%	5.7%
2019	18.4%	16.8%	11.5%	7.6%	4.6%	2.5%	6.4%
2020	14.8%	20.1%	8.1%	9.1%	4.6%	1.8%	7.9%
2021	13.1%	19.2%	7.7%	9.6%	4.6%	2.6%	8.0%
2022	14.3%	16.5%	9.1%	9.8%	4.9%	4.9%	8.0%
2023	17.2%	16.4%	9.8%	9.2%	5.3%	4.0%	6.5%
2024	15.7%	17.7%	8.5%	8.9%	5.7%	3.9%	6.8%
2025	15.5%	18.5%	7.8%	9.1%	5.5%	3.5%	6.5%
			Forecasts				
2026	15.7%	20.2%	7.8%	9.0%	5.5%	3.5%	6.3%
2027	16.0%	21.3%	7.8%	8.8%	5.5%	3.5%	6.2%
2028	16.3%	22.2%	7.9%	8.7%	5.5%	3.4%	6.1%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

Los Angeles MSA Exports by Sector: Shares of Total Volume (continued)

Industry	Fabricated Metal	Electrical Equipment	Apparel	Total Farm	Primary Metal	Other Sectors
1998	3.1%	2.9%	2.3%	1.5%	1.7%	23.0%
1999	2.6%	2.8%	2.2%	1.2%	1.2%	23.5%
2000	2.5%	3.4%	2.2%	1.3%	1.4%	20.7%
2001	2.9%	3.5%	2.7%	1.5%	1.5%	20.5%
2002	3.1%	3.5%	2.9%	1.5%	1.5%	21.8%
2003	3.2%	3.1%	2.4%	2.2%	1.5%	21.2%
2004	3.3%	3.3%	2.3%	2.2%	1.6%	18.3%
2005	3.5%	3.2%	2.4%	2.3%	1.7%	15.7%
2006	3.7%	3.5%	2.2%	2.2%	1.8%	17.4%
2007	3.3%	3.3%	2.0%	2.0%	1.7%	18.5%
2008	2.9%	2.7%	2.0%	1.9%	1.8%	17.4%
2009	3.0%	2.7%	2.3%	2.0%	1.6%	16.0%
2010	2.8%	2.4%	2.2%	1.7%	1.6%	15.6%
2011	2.4%	2.3%	1.9%	1.9%	1.7%	15.4%
2012	2.5%	2.4%	1.9%	1.9%	1.8%	14.3%
2013	2.7%	2.5%	1.9%	2.0%	1.9%	14.2%
2014	2.7%	3.4%	2.0%	2.0%	2.1%	15.5%
2015	3.1%	4.0%	2.3%	2.2%	2.3%	16.4%
2016	3.1%	3.9%	2.0%	2.6%	3.1%	15.4%
2017	3.2%	4.0%	2.0%	2.4%	3.8%	16.8%
2018	3.2%	3.9%	2.2%	2.4%	3.0%	17.4%
2019	3.5%	4.2%	2.2%	2.7%	2.7%	17.0%
2020	3.3%	4.0%	2.1%	3.4%	2.2%	18.7%
2021	3.1%	3.7%	2.8%	3.0%	2.4%	20.2%
2022	3.3%	4.1%	3.0%	2.6%	2.1%	17.3%
2023	4.2%	4.4%	2.4%	2.6%	2.4%	15.7%
2024	4.6%	5.3%	2.1%	2.6%	2.5%	15.6%
2025	4.5%	5.2%	1.8%	2.4%	2.8%	16.8%
			Forecast			
2026	4.6%	5.2%	1.7%	2.2%	2.7%	15.4%
2027	4.7%	5.3%	1.5%	2.2%	2.8%	14.4%
2028	4.9%	5.4%	1.4%	2.2%	2.8%	13.2%

Source: *Woods Center, California State University Fullerton and International Trade Administration*

A6. ORANGE COUNTY EXPORTS

Table A6
OC Exports by Country: Growth

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
2000	10.8%	39.6%	12.0%	28.9%	32.8%	16.3%	15.3%
2001	-12.4%	39.8%	1.8%	-5.8%	-20.9%	-1.5%	-22.9%
2002	-16.6%	-1.2%	-2.5%	-29.6%	-12.0%	-2.2%	-1.7%
2003	15.8%	31.1%	-4.5%	7.6%	11.2%	-5.7%	22.5%
2004	19.3%	36.5%	12.3%	22.5%	32.3%	13.9%	-4.3%
2005	16.2%	22.0%	13.8%	7.7%	12.2%	4.2%	16.4%
2006	10.3%	42.2%	27.0%	2.6%	9.4%	31.4%	4.7%
2007	32.2%	21.8%	10.3%	4.1%	25.8%	-14.1%	18.4%
2008	4.2%	-0.3%	46.9%	3.4%	8.9%	21.1%	11.9%
2009	-23.4%	-17.6%	-21.8%	-17.4%	-22.1%	11.7%	-17.9%
2010	14.8%	33.1%	14.8%	11.8%	14.4%	61.4%	7.3%
2011	12.7%	29.2%	21.2%	17.9%	6.5%	31.0%	19.5%
2012	6.1%	-6.7%	-2.3%	-1.4%	3.4%	6.7%	11.6%
2013	-1.7%	6.9%	34.3%	1.0%	9.0%	11.8%	8.7%
2014	-9.7%	-10.6%	-15.6%	-11.3%	-10.4%	-21.3%	-1.2%
2015	-8.5%	-13.6%	-7.3%	-15.9%	-7.3%	-34.2%	-15.2%
2016	-12.4%	-18.0%	2.3%	1.5%	-8.1%	-17.1%	-2.2%
2017	-12.6%	-8.4%	1.0%	-19.4%	-5.9%	-9.3%	-10.4%
2018	5.5%	-1.8%	15.6%	14.9%	7.6%	11.7%	3.2%
2019	-3.0%	-12.6%	1.8%	-0.1%	6.1%	-16.5%	5.2%
2020	-10.2%	-10.5%	11.0%	-14.4%	6.4%	-0.8%	-22.6%
2021	8.1%	15.0%	23.4%	12.7%	11.7%	17.0%	9.1%
2022	7.6%	6.3%	-38.2%	8.4%	16.5%	9.6%	11.2%
2023	-2.3%	-11.0%	5.2%	-5.7%	-3.4%	-3.4%	-7.0%
2024	-4.5%	-6.5%	6.5%	1.5%	-3.0%	-0.6%	10.4%
2025	3.4%	-29.4%	6.7%	6.3%	9.9%	8.8%	9.5%
			Forecasts				
2026	4.1%	-4.4%	9.1%	7.7%	7.7%	6.8%	7.4%
2027	5.9%	3.5%	8.4%	6.9%	8.3%	4.7%	3.1%
2028	3.9%	3.7%	4.1%	4.9%	6.8%	4.6%	2.2%

Source: *Woods Center, California State University Fullerton*

Table A7
OC Exports by Country: Shares of Total Volumes

Year	Canada	China	Germany	Japan	South Korea	Mexico	Rest of World
1999	15.6%	2.7%	2.0%	15.1%	5.0%	15.5%	44.1%
2000	14.6%	3.2%	1.9%	16.4%	5.6%	15.2%	43.0%
2001	14.7%	5.2%	2.2%	17.7%	5.1%	17.2%	38.0%
2002	13.5%	5.7%	2.3%	13.8%	5.0%	18.5%	41.2%
2003	13.8%	6.5%	2.0%	13.1%	4.8%	15.4%	44.4%
2004	14.9%	8.1%	2.0%	14.5%	5.8%	15.9%	38.7%
2005	15.3%	8.7%	2.0%	13.8%	5.8%	14.6%	39.7%
2006	14.9%	11.0%	2.2%	12.5%	5.6%	17.0%	36.8%
2007	17.3%	11.7%	2.2%	11.5%	6.2%	12.8%	38.3%
2008	16.4%	10.7%	2.9%	10.8%	6.1%	14.1%	38.9%
2009	14.8%	10.3%	2.7%	10.5%	5.6%	18.6%	37.6%
2010	13.9%	11.2%	2.5%	9.6%	5.2%	24.5%	33.0%
2011	12.9%	11.9%	2.5%	9.3%	4.6%	26.4%	32.4%
2012	13.0%	10.5%	2.3%	8.7%	4.5%	26.7%	34.3%
2013	11.8%	10.4%	2.9%	8.1%	4.5%	27.7%	34.5%
2014	11.9%	10.4%	2.7%	8.1%	4.5%	24.3%	38.1%
2015	13.3%	11.0%	3.1%	8.3%	5.2%	19.6%	39.5%
2016	12.7%	9.8%	3.4%	9.2%	5.2%	17.6%	42.0%
2017	12.4%	10.1%	3.9%	8.2%	5.4%	17.9%	42.1%
2018	12.3%	9.3%	4.2%	8.9%	5.5%	18.8%	40.9%
2019	12.2%	8.3%	4.4%	9.1%	6.0%	16.0%	44.0%
2020	12.6%	8.5%	5.6%	8.9%	7.3%	18.2%	39.0%
2021	12.1%	8.7%	6.1%	9.0%	7.2%	19.0%	37.9%
2022	12.2%	8.7%	3.6%	9.1%	7.9%	19.6%	39.6%
2023	12.5%	8.1%	3.9%	9.0%	8.0%	19.8%	38.6%
2024	11.6%	7.4%	4.1%	8.9%	7.5%	19.2%	41.3%
2025	11.4%	4.9%	4.1%	9.0%	7.9%	19.8%	42.9%
			Forecasts				
2026	11.1%	4.4%	4.2%	9.1%	8.0%	19.8%	43.3%
2027	11.3%	4.4%	4.4%	9.3%	8.2%	19.8%	42.6%
2028	11.3%	4.4%	4.4%	9.4%	8.5%	20.0%	42.1%

Source: *Woods Center, California State University Fullerton*

Table A8
OC Exports by Region: Growth Rate

Year	Africa	Asia	European Union	USMCA	South America
2000	-8.5%	21.9%	20.4%	13.6%	0.2%
2001	3.8%	-16.8%	-13.1%	-6.8%	-2.3%
2002	-1.2%	-6.1%	-12.9%	-8.8%	-29.4%
2003	15.9%	21.2%	13.2%	3.3%	-2.2%
2004	36.5%	8.1%	7.9%	16.5%	53.1%
2005	17.3%	12.1%	8.4%	10.0%	22.6%
2006	31.2%	12.9%	5.3%	20.6%	23.8%
2007	-9.8%	15.9%	20.1%	7.6%	25.2%
2008	35.4%	3.4%	8.8%	11.4%	35.4%
2009	-1.3%	-16.0%	-20.4%	-7.2%	-26.2%
2010	-15.3%	20.6%	2.2%	40.7%	27.9%
2011	8.2%	23.0%	20.6%	24.4%	34.9%
2012	25.6%	-2.7%	6.7%	6.5%	8.0%
2013	-15.7%	7.3%	12.6%	7.4%	8.0%
2014	-23.4%	-3.2%	-6.1%	-17.8%	-1.5%
2015	-10.5%	-13.2%	-16.1%	-25.8%	-29.2%
2016	5.6%	-1.9%	1.1%	-15.2%	-18.7%
2017	-41.5%	-10.8%	-6.9%	-10.7%	-16.2%
2018	30.9%	3.6%	-0.2%	9.2%	-3.6%
2019	-3.0%	0.2%	5.9%	-11.2%	-8.1%
2020	-8.2%	-15.9%	-10.9%	-4.9%	-15.2%
2021	8.9%	14.2%	8.0%	13.4%	17.0%
2022	6.7%	6.2%	4.1%	8.8%	5.3%
2023	2.1%	-5.8%	-4.5%	-3.0%	-9.9%
2024	14.9%	2.5%	5.2%	-2.1%	1.1%
2025	12.3%	1.0%	9.4%	6.8%	12.9%
			Forecasts		
2026	6.5%	6.5%	7.0%	5.8%	13.6%
2027	6.0%	5.7%	4.7%	5.1%	5.4%
2028	3.7%	2.7%	4.7%	4.3%	4.3%

Source: *Woods Center, California State University Fullerton*

Table A9
OC Exports by Sector: Growth Rate

Industry	Transportation Equipment	Computer Electronic Product	Miscellaneous	Chemical	Machinery	Petroleum & Coal Products	Food
2000	9.6%	19.6%	17.9%	23.3%	61.8%	37.6%	15.2%
2001	-25.7%	-11.2%	-11.4%	-10.8%	-11.9%	-4.2%	-7.1%
2002	-11.2%	-17.3%	0.8%	-15.3%	-11.5%	-3.8%	-7.1%
2003	20.7%	18.5%	9.3%	13.8%	4.2%	-3.4%	16.9%
2004	12.7%	1.0%	4.7%	21.1%	22.5%	15.1%	30.3%
2005	26.4%	10.7%	21.7%	33.4%	15.5%	30.8%	11.2%
2006	18.8%	7.9%	38.7%	28.0%	0.4%	39.0%	17.6%
2007	21.7%	9.6%	15.2%	27.3%	6.8%	30.6%	12.4%
2008	10.1%	10.9%	20.4%	2.4%	14.1%	5.9%	22.0%
2009	-19.5%	-24.0%	-13.7%	-6.5%	-15.9%	12.3%	-14.7%
2010	33.2%	42.8%	23.0%	17.9%	12.1%	18.5%	37.2%
2011	20.4%	29.9%	35.5%	20.3%	6.5%	43.0%	26.3%
2012	5.5%	8.2%	5.2%	1.4%	10.7%	-3.4%	6.0%
2013	10.2%	7.7%	-1.6%	11.8%	12.2%	8.9%	-0.3%
2014	-9.3%	-15.8%	-11.2%	-2.1%	-16.5%	-3.8%	-9.4%
2015	-19.1%	-24.1%	-20.7%	-20.5%	-24.1%	-17.6%	-19.7%
2016	-6.3%	-14.8%	-10.1%	-5.9%	-8.6%	-15.0%	-9.2%
2017	-14.2%	-20.7%	1.9%	-10.6%	-11.3%	-1.1%	3.4%
2018	-1.4%	11.4%	20.8%	11.2%	6.0%	3.6%	2.6%
2019	-5.8%	-14.0%	14.4%	3.7%	-4.7%	-1.4%	11.2%
2020	-29.6%	-4.8%	-32.0%	-11.1%	-7.6%	-31.3%	5.7%
2021	6.6%	14.6%	10.6%	23.6%	19.4%	43.6%	20.2%
2022	13.8%	4.2%	18.8%	1.4%	2.4%	0.5%	-2.0%
2023	9.8%	-5.8%	-5.4%	-10.7%	1.8%	-18.5%	-14.6%
2024	-6.7%	-1.3%	-6.0%	3.2%	-6.0%	7.5%	1.5%
2025	4.3%	12.2%	-0.4%	7.7%	1.3%	-5.8%	1.6%
			Forecasts				
2026	6.9%	10.2%	9.5%	4.9%	6.5%	-1.1%	6.5%
2027	6.0%	7.2%	6.2%	4.7%	4.7%	4.7%	7.1%
2028	2.8%	5.1%	2.6%	3.9%	4.7%	3.7%	2.9%

Source: *Woods Center, California State University Fullerton*

OC Exports by Sector: Growth Rate (continued)

Industry	Fabricated Metal Product	Electrical Equipment Appliance	Apparel	Total Farm	Primary Metal	Other Sectors	Total Exports
2000	11.2%	41.3%	15.1%	25.3%	36.1%	10.2%	18.3%
2001	5.7%	-18.8%	13.8%	5.4%	-7.9%	-11.1%	-12.7%
2002	-15.8%	-2.1%	-3.9%	5.1%	-7.9%	0.0%	-9.5%
2003	36.5%	1.1%	-9.1%	29.3%	15.2%	8.1%	13.6%
2004	16.2%	19.9%	2.5%	5.3%	13.0%	11.2%	10.0%
2005	13.0%	12.2%	21.7%	6.3%	28.0%	-1.5%	13.3%
2006	19.2%	17.9%	5.4%	17.3%	16.9%	4.3%	13.2%
2007	7.1%	3.9%	0.6%	8.2%	8.4%	12.4%	13.8%
2008	-4.1%	-1.6%	5.9%	13.6%	16.7%	8.6%	9.9%
2009	-14.1%	-18.7%	5.7%	-16.6%	-19.9%	-4.9%	-14.9%
2010	18.7%	14.4%	7.7%	27.5%	25.0%	-7.5%	22.2%
2011	17.8%	25.3%	10.4%	16.4%	24.5%	5.7%	21.7%
2012	2.7%	6.0%	8.0%	2.2%	-0.1%	4.1%	5.5%
2013	12.6%	23.3%	12.2%	25.6%	32.7%	-1.3%	7.9%
2014	-14.9%	5.4%	-9.9%	-15.1%	-6.6%	-6.3%	-10.4%
2015	-22.2%	-16.4%	-23.3%	-19.9%	-17.0%	1.4%	-18.4%
2016	-5.0%	-5.1%	-7.1%	-8.9%	-1.9%	0.0%	-8.1%
2017	-4.6%	-6.1%	3.9%	-3.6%	0.4%	-7.7%	-10.5%
2018	12.2%	11.1%	9.6%	13.6%	-2.0%	0.9%	6.2%
2019	10.4%	7.1%	-3.8%	4.5%	5.9%	-3.2%	-2.1%
2020	-17.0%	-13.1%	-9.6%	11.5%	1.2%	0.6%	-12.6%
2021	11.6%	2.0%	23.9%	6.7%	20.0%	0.9%	12.2%
2022	11.0%	16.1%	0.7%	4.2%	-0.7%	4.9%	6.3%
2023	7.3%	-7.2%	-16.4%	-0.6%	-3.7%	-8.4%	-4.5%
2024	-7.0%	-1.7%	8.9%	-2.5%	-8.1%	32.2%	2.9%
2025	1.3%	-1.5%	-4.9%	-3.5%	16.5%	7.9%	5.4%
			Forecasts				
2026	9.7%	3.7%	6.5%	2.4%	4.4%	4.0%	6.5%
2027	7.3%	4.7%	4.7%	0.5%	4.1%	0.1%	4.7%
2028	7.1%	6.9%	3.7%	-0.7%	2.6%	2.5%	3.7%

Source: *Woods Center, California State University Fullerton*

Table A10
OC Exports by Sector: Shares of Total Volume

Industry	Transportation Equipment	Computer & Electronic	Miscellaneous	Chemical	Machinery	Petroleum & Coal	Food
1999	19.9%	30.0%	4.2%	4.2%	4.9%	1.3%	2.9%
2000	18.5%	30.3%	4.2%	4.4%	6.6%	1.5%	2.8%
2001	15.7%	30.8%	4.3%	4.5%	6.7%	1.6%	3.0%
2002	15.4%	28.2%	4.8%	4.2%	6.6%	1.8%	3.1%
2003	16.4%	29.4%	4.6%	4.2%	6.0%	1.5%	3.1%
2004	16.8%	27.0%	4.4%	4.6%	6.7%	1.6%	3.7%
2005	18.7%	26.3%	4.7%	5.5%	6.8%	1.8%	3.7%
2006	19.6%	25.1%	5.8%	6.2%	6.1%	2.2%	3.8%
2007	21.0%	24.2%	5.8%	6.9%	5.7%	2.5%	3.7%
2008	21.1%	24.4%	6.4%	6.4%	5.9%	2.4%	4.2%
2009	19.9%	21.8%	6.5%	7.1%	5.8%	3.2%	4.2%
2010	21.7%	25.5%	6.5%	6.8%	5.3%	3.1%	4.7%
2011	21.5%	27.2%	7.3%	6.7%	4.7%	3.7%	4.9%
2012	21.5%	27.9%	7.2%	6.5%	4.9%	3.4%	4.9%
2013	21.9%	27.8%	6.6%	6.7%	5.1%	3.4%	4.5%
2014	22.2%	26.2%	6.5%	7.3%	4.8%	3.6%	4.6%
2015	22.0%	24.3%	6.4%	7.1%	4.4%	3.7%	4.5%
2016	22.4%	22.5%	6.2%	7.3%	4.4%	3.4%	4.4%
2017	21.5%	20.0%	7.1%	7.3%	4.4%	3.8%	5.1%
2018	20.0%	20.9%	8.1%	7.6%	4.4%	3.7%	4.9%
2019	19.2%	18.4%	9.4%	8.1%	4.2%	3.7%	5.6%
2020	15.5%	20.0%	7.3%	8.2%	4.5%	2.9%	6.8%
2021	14.7%	20.5%	7.2%	9.1%	4.8%	3.7%	7.3%
2022	15.7%	20.1%	8.1%	8.7%	4.6%	3.5%	6.7%
2023	18.1%	19.8%	8.0%	8.1%	4.9%	3.0%	6.0%
2024	16.4%	19.0%	7.3%	8.1%	4.5%	3.1%	5.9%
2025	16.2%	20.2%	6.9%	8.3%	4.3%	2.8%	5.7%
			Forecasts				
2026	16.3%	20.9%	7.1%	8.2%	4.3%	2.6%	5.7%
2027	16.5%	21.4%	7.2%	8.2%	4.3%	2.6%	5.8%
2028	16.4%	21.7%	7.1%	8.2%	4.3%	2.6%	5.8%

Source: *Woods Center, California State University Fullerton*

OC Exports by Sector: Shares of Total Volume (continued)						
Industry	**Fabricated Metal**	**Electrical Equipment**	**Apparel**	**Total Farm**	**Primary Metal**	**Other Sectors**
1999	2.6%	2.9%	2.3%	1.3%	1.2%	22.4%
2000	2.4%	3.4%	2.2%	1.3%	1.4%	20.9%
2001	2.9%	3.2%	2.9%	1.6%	1.5%	21.3%
2002	2.7%	3.4%	3.1%	1.9%	1.5%	23.5%
2003	3.3%	3.1%	2.5%	2.1%	1.5%	22.4%
2004	3.5%	3.3%	2.3%	2.0%	1.5%	22.6%
2005	3.5%	3.3%	2.5%	1.9%	1.7%	19.6%
2006	3.6%	3.4%	2.3%	2.0%	1.8%	18.1%
2007	3.4%	3.1%	2.0%	1.9%	1.7%	17.9%
2008	3.0%	2.8%	2.0%	1.9%	1.8%	17.7%
2009	3.0%	2.7%	2.4%	1.9%	1.7%	19.8%
2010	2.9%	2.5%	2.1%	2.0%	1.8%	15.0%
2011	2.8%	2.6%	1.9%	1.9%	1.8%	13.0%
2012	2.8%	2.6%	2.0%	1.8%	1.7%	12.8%
2013	2.9%	3.0%	2.1%	2.1%	2.1%	11.7%
2014	2.7%	3.5%	2.1%	2.0%	2.2%	12.3%
2015	2.6%	3.6%	1.9%	2.0%	2.2%	15.2%
2016	2.7%	3.7%	2.0%	2.0%	2.4%	16.6%
2017	2.9%	3.9%	2.3%	2.1%	2.7%	17.1%
2018	3.0%	4.1%	2.4%	2.3%	2.5%	16.2%
2019	3.4%	4.4%	2.3%	2.4%	2.7%	16.1%
2020	3.3%	4.4%	2.4%	3.1%	3.1%	18.5%
2021	3.2%	4.0%	2.7%	2.9%	3.3%	16.6%
2022	3.4%	4.4%	2.5%	2.9%	3.1%	16.4%
2023	3.8%	4.3%	2.2%	3.0%	3.1%	15.7%
2024	3.4%	4.1%	2.3%	2.8%	2.8%	20.2%
2025	3.3%	3.8%	2.1%	2.6%	3.1%	20.7%
Forecast						
2026	3.4%	3.7%	2.1%	2.5%	3.0%	20.2%
2027	3.5%	3.7%	2.1%	2.4%	3.0%	19.3%
2028	3.6%	3.8%	2.1%	2.3%	3.0%	19.1%

Source: *Woods Center, California State University Fullerton*

International Trade Forecasts

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